Rush University

Presbyterian-St. Luke's Hospital

Chicago

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Medical Education
Rush-PresbyterianSt. Luke's
Medical Center

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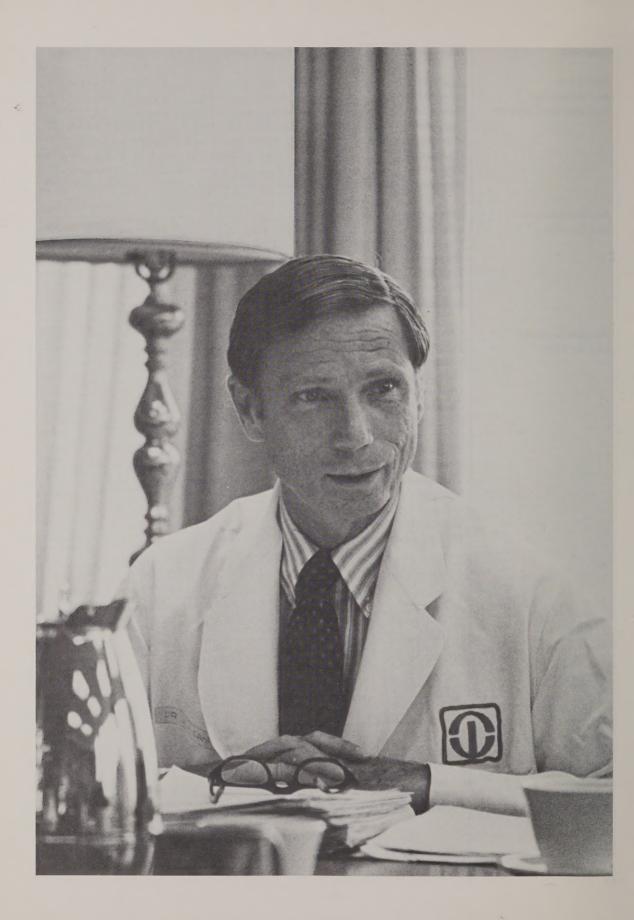
Rush University

Presbyterian-St. Luke's Hospital Chicago Graduate Medical Education Rush-Presbyterian-St. Luke's Medical Center

Office of Graduate Medical Education Rush-Presbyterian-St. Luke's Medical Center 1725 West Harrison Street Chicago, Illinois 60612 312-942-5495



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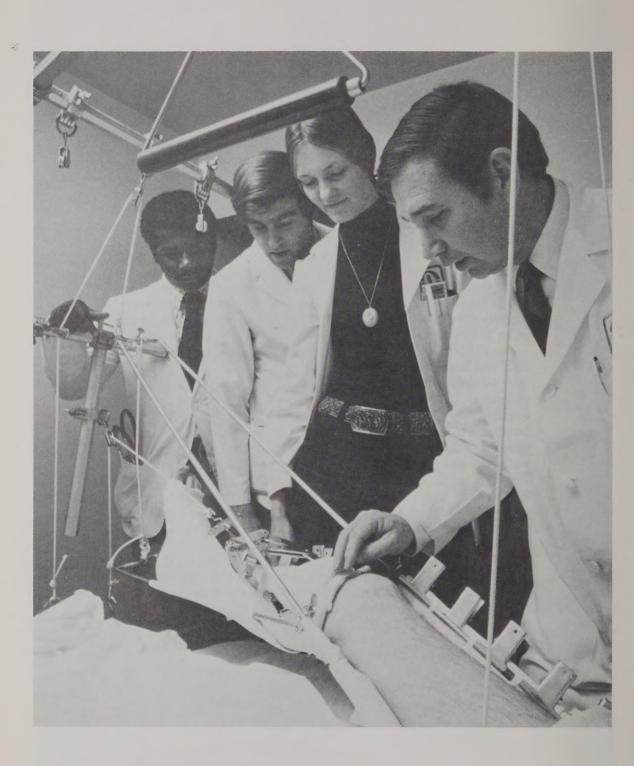
The concept of an academic health center has gained recognition throughout the United States as an important organizing principle for patient services, medical education, and scientific inquiry. At Rush-Presbyterian-St. Luke's Medical Center, our approach in the development of such a center is based on a commitment for orderly and balanced growth among all the components — patient care, education, and research.

The Graduate Medical Education program arises out of the strengths of these components. With all of them, it finds its purpose, justification, and direction in the priority we place on patient care. The emphasis comes from the long tradition of the original individual institutions, potentiated by their most recent combination a decade ago. We believe with Francis Well Peabody that "the secret of care of the patient is in caring for the patient," and we agree that "without scientific knowledge a compassionate wish to serve mankind's health is meaningless, but scientific knowledge without wisdom and compassion is a frozen storehouse."

At Rush-Presbyterian-St. Luke's, the stature of the medical staff and faculties expresses our standards of what I should like to call "physician-ship." These are the qualities by which humane and principled men and women put knowledge and understanding, science and skills to use. To harbor ambitions to produce good doctors carries us deep into the enigma of character formation. Our observation tells us that the interns and residents of our house staff have had more than a disciplined experience in education. Whatever we do in education, it is clear that the power of example is one of the surest forces for elevating the quality of perception and performance to the standards we set, assay and seek anew.

As house officers, you will develop confidence in your knowledge of health and disease and in your strengths in special areas of concern, yet you must bring to a new level of appreciation the sense that each patient is a person whose wholeness transcends the immediate physical problem. Your responsibility is to grow. Our responsibility here is to nurture your growth in every way that we can.

James A. Campbell, M.D. *President* 



In many ways, Rush-Presbyterian-St. Luke's offers interns and residents today what it offered me as an intern in 1958: an outstanding medical staff, a rich mix of patients, opportunities for research, and in particular a tradition of imaginative responses to patient and community needs that goes back to the founding of Rush Medical College in 1837. In many ways, it offers more, for a fully organized university now exists as an integral activity of the Medical Center offering patient care at every level of sophistication.

In his inaugural address the founder, Dr. Daniel Brainard, set the goals by which we still guide our course: "The health, the happiness and the life of your dearest friends, and your own, may, and will, some day depend on the skill of some member of the medical profession . . . To elevate the standard of skill and knowledge in the profession, to excite an honorable emulation among its members, to disseminate in this new region the principles of medical science . . . such are the objects held in view by the founders of this institution."

Such are the objects that continue to guide the clinical and educational opportunities we offer to interns and residents in teaching professional maturity. They have served as the basis for the remarkable degree of mutual respect between the house staff, the medical staff and faculty and the administration. Because of these common perceptions, discussions with the members of the House Staff Association have led to a contract with which all are comfortable. We are learning together to enrich the health, the happiness and the lives of our patients, and thus of ourselves. We invite you to join us.

William F. Hejna, M.D. Vice President for Medical Affairs, and Dean, Rush Medical College The goal of our graduate medical education program is to provide the new physician an environment in which a high level of professional competence can be developed. While the goal is fixed, there must be a high degree of flexibility involved in the program that is

the path to that goal.

At Rush-Presbyterian-St. Luke's we recognize the inseparable relationship between first-rate practice and learning. The good physician must be expert in the acquisition as well as the application of knowledge and skills. We also recognize that there have been major changes in medical education on the one hand and in the expectations of those who have a right to sound health on the other. Education and training for a career of professional competence are designed to take these changes into account, and to respond to other significant changes as they occur. The departments establish the details of their training programs according to the requirements of the various specialties. The Office of Graduate Medical Education coordinates the programs in the light of the overall goal, and maintains a continuing process of evaluation and re-evaluation. The Office also provides centralized services to interns, residents, and fellows for those details common to all, such as stipends, housing, and insurance.

Graduate medical education at Rush-Presbyterian-St. Luke's will continue to be responsive to the needs of new physicians striving to exercise their growing abilities with knowledge and compassion. We will appreciate your insights into a process that must constantly adapt if we are to reach a goal that must never change, the education of highly competent and effective physicians.

John S. Graettinger, M.D. Director of Graduate Medical Education and Dean of Faculty Affairs, Rush University





#### Introduction

Rush-Presbyterian-St. Luke's Medical Center offers training in nineteen clinical departments and eight basic science departments to some 250 residents, trainees and fellows each year. An additional clinical program is being developed in the newly established Department of Family Practice.

Presbyterian-St. Luke's Hospital and Health Center provides the major clinical base for graduate medical education; other hospitals affiliated with Rush University offer additional and supplemental opportunities. The 550 private physicians on the attending staff of Presbyterian-St. Luke's Hospital are also faculty members of Rush University, as are many of the attending physicians and surgeons at Medical Center affiliates; the faculty of the University includes some 900 clinicians and scientists. The Professional Building on the Medical Center campus provides private office space for members of the attending staff;

postgraduate training may include opportunities to follow patients there.

In order to offer a broader range of clinical experiences, the Medical Center also draws upon a network of resources which includes contractual affiliation with ten hospitals and health centers in northern Illinois, and cooperative educational programs with thirteen colleges and universities throughout the Midwest. Many of the Medical Center graduate programs require rotation through one or more affiliated hospitals which are located in rural and semirural areas, suburbs, and a variety of urban situations.<sup>2</sup> Presbyterian-St Luke's Hospital itself is both a major referral center and a community resource; patients come from all parts of the metropolitan area, and the nation, and from all economic and social strata.

#### History

Rush University	1972
Rush-Presbyterian-St. Luke's Medical Center	1969
Presbyterian-St. Luke's Hospital	1956
Presbyterian Hospital	1883
St. Luke's Hospital	1864
Central Free Dispensary	1857
Rush Medical College	1837

#### **Departments**

The activities of the various basic science and clinical disciplines are carried out by the departments at Rush-Presbyterian-St. Luke's Medical Center. The departments are grouped into three offices: Biological and Behavioral Sciences and Services, Medical Sciences and Services, and Surgical Sciences and Services. Each department is responsible for participation in the health care activities of the Center and for educational programs for health professionals at the

undergraduate, graduate and continuing levels; each is expected to encourage and conduct research. In the following pages, each department has described its activities.

The educational programs in the departments in Biological and Behavioral Sciences and Services are directed primarily to undergraduate medical and nursing students and to graduate students, but there are also programs for house officers described. In the clinical departments,

<sup>&</sup>lt;sup>1</sup>Information on stipends, benefits, and related matters is to be found in an accompanying folder.

<sup>&</sup>lt;sup>2</sup>Residents in Family Practice and other programs based at affiliated hospitals also rotate through Presbyterian-St. Luke's.

first year graduate medical education programs are offered via the NIRMP in the major clinical specialties, and advanced programs, residencies and fellowships, are offered in all of the clinical specialties and subspecialties.

#### **Facilities**

Rush-Presbyterian-St. Luke's Medical Center is located in Chicago in the northeast corner of the 350-acre Medical Center District of the State of Illinois. It currently comprises sixteen buildings. Two other structures-a 192,000-square foot academic facility and an eight-story geriatric patient care and residential building-are scheduled for completion in 1976. The academic building will accommodate large class and laboratory activities, small group seminars, individual tutoring, and faculty offices; it will have direct internal access to the Professional Building and to other patient care and research facilities. The Johnston R. Bowman Health Center for the Elderly will provide short-term restorative care, comprehensive ambulatory services, residential apartments, and the clinical setting for professional training in gerontology and geriatrics.

The campus includes Presbyterian-St. Luke's Hospital, Health Center clinics, the Marshall Field IV psychiatric outpatient building, research facilities, apartment buildings, the Laurence Armour Day School for children of employees and students, and the Rush Library, the oldest medical library in the city of Chicago. The Library houses approximately 70,000 volumes, subscribes to 750 periodicals, borrows documents and volumes through interlibrary loan, and processes Medlars and Medline requests. The Library also has an outstanding collection of rare medical books available for research.

Neighboring institutions within the Medical Center district include the University of Illinois Medical Center, Hektoen Institute, the Cook County Hospital and its Graduate School of Medicine and School of Nursing, the West Side Veterans Administration Hospital, the State of Illinois Public Health Laboratory, and the Illinois State Psychiatric Institute. Various Rush departments maintain vigorous cooperative programs with many of these institutions.

### Patient Care at the Medical Center (Fiscal year ended June 30, 1975)

Bed capacity (excluding bassinets)	858
Total admissions (including newborns)	28,808
Total days care of patients (including nursery)	289,394
Average length of stay (adult and pediatric)	10.3 days
Occupancy (excluding nursery)	90.2%
Health Center visits	90,353
Emergency Room visits	25,378
Operations performed	15,449
Blood transfusions	20,988

#### Students

Medical students	283
Nursing and allied health students	249
Interns, residents and fellows	241



#### Research

Opportunities are available for house officers to work on M.S. and Ph.D. programs in conjunction with their graduate medical education. Approximately 5 per cent of the current budget of the Medical Center is devoted to research, and the proportion is expected to grow. The commitment has involved annual expenditures in the area of \$5 million, funded by private agencies, foundations, corporations, federal and state agencies, and individuals.

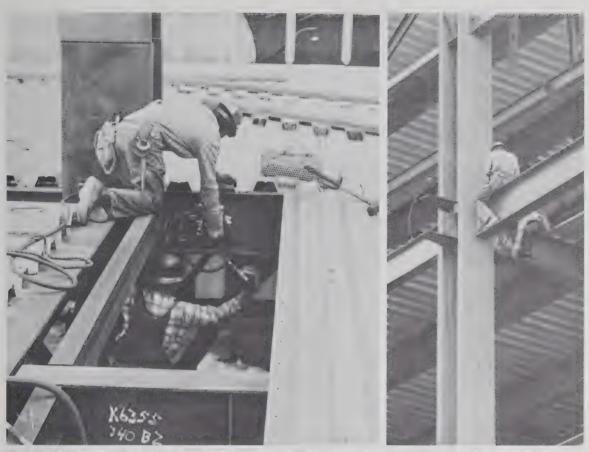
The structure of the Medical Center includes a number of interdisciplinary committees for patient care, where physicians, surgeons, basic scientists, and psychologists develop integrated therapies for patients with diseases such as multiple sclerosis and rheumatoid arthritis. The interdisciplinary approach also informs the research areas, especially in the approaches to cancer, cardiovascular diseases, and orthopedics. House staff members are encouraged to take an active role in the continuing exchange of information and insights.

#### **Faculty and Staff**

Rush Medical College	900
Rush College of Nursing and Allied Health Sciences	94
Attending physicians	422
Total employees	4,563

#### Research Projects

Research projects in progress	392
Research reports published	337
Research awards, 1973-74	\$5,350,000





The seventeenth Medical Center building is the Academic Facility (center campus, above), now under construction. 11

#### The Networks

Without the cooperation of other institutions Rush-Presbyterian-St. Luke's cannot fulfill its clinical and educational commitments to the people of Illinois. Clinical affiliates throughout northern Illinois help to provide access for patients to all levels of care; they offer a broad base for clinical research into new treatment and prevention modalities and enhance the promulgation of new ideas. There is a significant exchange of educational opportunities as well: staff members of affiliated hospitals share in teaching residents, interns, and medical students and participate in the continuing education programs affiliated college and move to the of the Medical Center, Residents rotating through affiliated hospitals experience the complete range of medical needs in their specialty, and gain insight into the differing needs of differing communities. The affiliates are located in rural, semirural, and suburban areas and in different types of neighborhoods throughout the city. The clinical affiliates are:

Bethany Brethren/Garfield Park Community Hospital, Chicago (197 beds)

Central DuPage Hospital, Winfield (237 beds)

Christ Hospital, Oak Lawn (615 beds)

Community Memorial General Hospital, LaGrange (237 beds)

DeKalb Public Hospital, DeKalb (103 beds)

Galesburg Cottage Hospital, Galesburg (234 beds)

Swedish Covenant Hospital. Chicago (235 beds)

West Suburban Hospital, Oak Park (267 beds)

Mile Square Health Center, Chicago, an outpatient facility with over 20,000 patients registered

Rush-Presbyterian-St. Luke's in 1975-76 is establishing an educational program in cooperation with neighboring Mt. Sinai Hospital Medical Center, a 479-bed teaching institution providing outpatient and inpatient services to a broad metropolitan population.

Rush-Presbyterian-St Luke's has also initiated cooperative programs with fourteen colleges and universities from Colorado to Tennessee. These colleges and universities help to provide the health manpower needed to make the system work for the good of the patient, on an economically sound base and in a setting that enhances the humanistic aspects of health care training. Students of nursing and allied health professions may begin their studies on the campus of an medical center in their third or fourth year to complete professional training for the Bachelor of Science or Master of Science degree. Special programs with two of the colleges, Knox and Grinnell, allow medical students to combine their last year of college with their first year of medical training, on the campus of the affiliated college. The educational affiliates are:

Beloit College, Beloit, Wisconsin Carleton College, Northfield, Minnesota

Coe College, Cedar Rapids, Iowa The Colorado College, Colorado Springs, Colorado Cornell College, Mount Vernon,

Fisk University, Nashville, Tennessee

Grinnell College, Grinnell, Iowa Illinois Institute of Technology, Chicago, Illinois

Knox College, Galesburg, Illinois Lake Forest College, Lake Forest,

Lawrence University, Appleton, Wisconsin

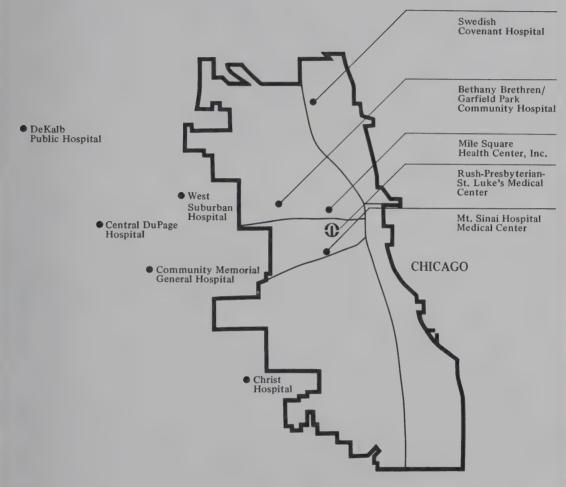
Macalester College, St. Paul, Minnesota

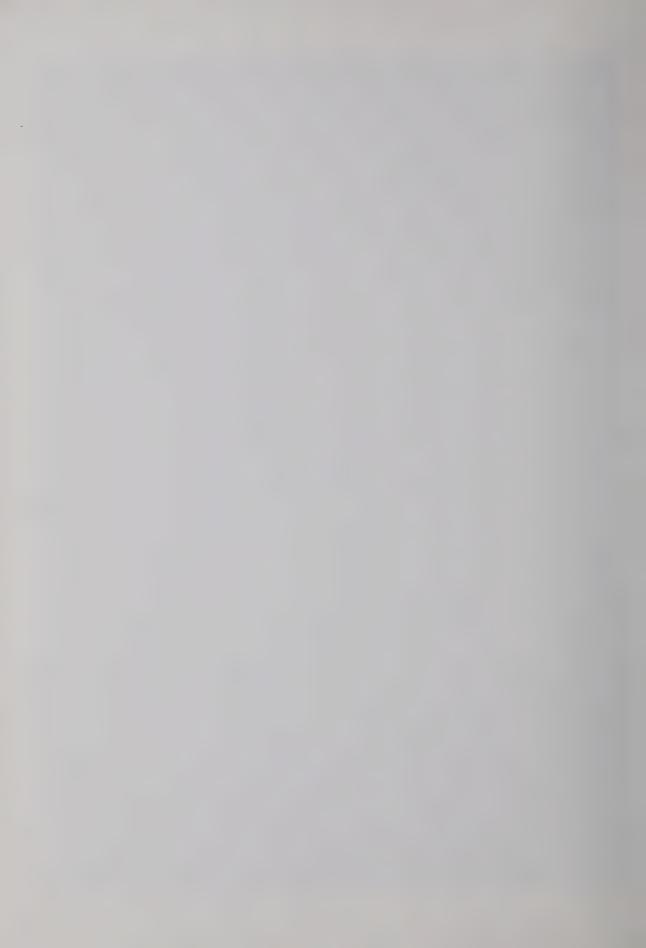
Illinois

Monmouth College, Monmouth,

Ripon College, Ripon, Wisconsin

#### **Clinical Affiliations**





# cal and Sciences Services Cheifetz, Ph.D. Associate Dean and Behavioral Sciences Vice President ledical Affairs

## Department of Anatomy

SCHMIDT, ANTHONY J., Ph.D., Chairman

MAIBENCO, HELEN C., B.S., M.S., Ph.D., Professor SCHMIDT, ANTHONY J., B.A., M.S., Ph.D., Professor WAGONER, NORMA E., B.A., Ph.D., Assistant Professor

The primary role of the anatomical sciences is to provide fundamental knowledge of the architecture of the human body and concepts relevant to its function. All branches of medicine are served by effective personal experiences in the topographic exploration of man's functioning biological structure, at both the gross and the microscopic levels. The education and research encompassed by the anatomical sciences include gross human anatomy, cellular and histologic anatomy, neuroanatomy, and embryology.

Understanding and application of anatomy are of particular value to the surgical services. Accordingly, the Department of Anatomy collaborates with the Department of General Surgery to offer a preceptorial and laboratory program in surgical anatomy at specific intervals during the academic year. The Department also offers a series of short-term modules of instruction in regional anatomy, primarily for residents in specialty programs.

Advanced courses, currently accredited by the Graduate College of the University of Illinois, are offered during alternate years. These include:

(1) Morphologic and Physiologic Adaptations to Growth, Aging and Injury; (2) Experimental Morphogenesis (Embryology); and (3) Cell Biology of Vertebrate Repair and Regeneration.

SEALE, RAYMOND U., B.S., A.M.,

Ph.D., Associate Professor

Research and scholarship in the anatomical sciences is encouraged. Currently, interdisciplinary collaboration includes investigations into the biomechanics of human motion, general and specific myopathies, ophthalmopathies, and neuropathogenesis.

Members of the faculty of the Department are currently investigating morphological changes in druginduced dyskinesias; DNA synthesis during gestation; cell population renewal in oviduct and cervix; microbial endocarditis; cytological and molecular biology of wound healing, repair and regeneration in muscular, nervous, soft connective, skeletal and other tissues; and teratology, particularly congenital anomalies of appendages.

Inquiries regarding additional programs and general information relative to the Department's activities are welcome.

## Department of Biochemistry

SKY-PECK, HOWARD H., The John W. and Helen H. Watzek Chairman

BANDI, ZOLTAN L., Ph.D., Assistant Professor RMC and Assistant Scientist PSLH

BAYS, JAMES P., Assistant Professor RMC

BEZKOROVAINY, ANATOLY, Ph.D., Professor RMC and Senior Scientist PSLH

BOOYSE, FRANÇOIS M., Ph. D., Associate Professor RMC

COHEN, MAYNARD M., M.D., Ph.D., Professor RMC and Senior Attending PSLH (also Neurological Sciences)

COLE, EDMOND R., Ph.D., Associate Professor RMC and Associate Scientist PSLH (also Hematology) DUBIN, ALVIN, M.S., Associate Professor RMC

HARRIS, LELAND, Ph.D., Professor RMC

HARRISON, WILLIAM H., Ph.D., Professor RMC (also Neurological Sciences)

HAYASHI, JAMES A., Ph.D., Professor RMC and Senior Scientist PSLH

HOF, HILDEGARD I., Ph.D., Assistant Professor RMC (also Psychiatry)

HOSKIN, FRANCIS C. G., Ph.D., Visiting Professor RMC (also Neurological Sciences)

KACHMAR, JOHN F., Ph.D., Associate Professor RMC and Senior Scientist PSLH (also College of Nursing and Allied Health Sciences)

#### Biochemistry . . .

KORNEL, LUDWIG, M.D., Ph.D., Professor RMC and Senior Attending PSLH (also Internal Medicine)

KUETTNER, KLAUS E., Ph.D., Associate Professor RMC (also Orthopedic Surgery)

MATTENHEIMER, HERMANN G. W., M.D., Professor RMC and Senior Scientist PSLH

NICHOLS, JAMES H., Ph.D., Instructor RMC

RAFELSON, MAX E., JR., Ph.D., Professor RMC and Senior Scientist PSLH
SKY-PECK, HOWARD H., Ph.D., Professor RMC and Senior Scientist PSLH
SLY, DAYLE A., Ph.D., Instructor RMC
WHISLER, WALTER W., M.D., Ph.D.,
Professor RMC and Senior Attending
PSLH (also Neurosurgery)

The Department of Biochemistry provides biochemical diagnostic services to the Hospital and Medical Center and participates actively in the undergraduate and postgraduate teaching programs of Rush University. Members of the staff conduct seminars, specialty rounds, and elective courses in the biochemistry of diseases and in research methodology for students, research fellows, interns, residents and staff.

The Department maintains an extensive program of research. Studies on the mechanism and regulation of blood platelet interactions (aggregation) and platelet-vessel wall interactions are continuing in order to better understand the mechanism of thrombosis and the physiological role of platelets and the vessel wall (endothelial cells) in maintaining normal hemostasis. A number of studies also deal with the chemistry and biology of the transferrin class of proteins. The project on human colostral glycoproteins has thus far isolated four glycoproteins in a homogeneous state. All were shown to possess Lactobacillus bifidus growth-promoting activities; further study has demonstrated that the human colostrum

whey glycoproteins contain at least two types of carbohydrate chains, both capable of supporting the growth of *Lactobacillus bifidus*.

A comparison between in vivo <sup>3</sup>H-thymidine incorporation into tumor nuclei, before and after initiation of therapy, and the clinical effectiveness of therapeutic agents has been shown to be of value as a means of screening prospective drugs in the treatment of human cancers. Present studies indicate that human tumors do not necessarily grow or regenerate faster than normal tissues; the rapid increase in mass of a tumor may not necessarily be related to increased rate of proliferation but to an increased survival of daughter cells. These studies have recently led to investigation of immune responses of various human tumor cells and lymphocytes to various endogenous and exogenous agents.

Other studies in the Department of Biochemistry deal with intermediary metabolism of cariogenic streptococcus and the role of enzymes in dental caries; and functional and metabolic changes in the kidney following transplant.

## Department of Biomedical Engineering

DOW, JAMES W., M.D., Chairman LEVETT, JEFFREY, Ph.D., Associate Chairman

ACKERMAN, L. V., Ph. D., M.D., Assistant Professor RMC and Assistant Scientist PSLH (also Radiology)

AGARWAL, GYAN C., B.S., B.S.E.E., M.S.E.E., Ph.D., Visiting Professor RMC

AGGARWAL, RAJ K., Ph.D., Assistant Professor RMC and Assistant Scientist PSLH (also Internal Medicine)

ANDRIACCHI, THOMAS, Ph.D., Assistant Professor and Assistant Scientist (also Orthopedics)

BACUS, JAMES, B.S., Ph.D., Associate Professor RMC and Associate Scientist PSLH (also Internal Medicine) BRUESCHKE, ERIC, M.D., Visiting Pro-

BRUESCHKE, ERIC, M.D., Visiting Professor RMC

DAVIS, FLOYD A., B.S., M.D., Associate Professor RMC and Associate Scientist PSLH (also Neurological Sciences)

DOW, JAMES W., B.S., M.D., Professor RMC and Senior Scientist PSLH (also Internal Medicine)

GOTTLIEB, GERALD, B.S., M.S., Ph.D., Associate Professor RMC (also Physiology)

## Biomedical Engineering . . .

INNS, JAMES, M. S., Instructor RMC KONA, WILLIAM, B.S., Ph.D., Assistant Professor RMC

LEVETT, JEFFREY, B.S., Ph.D., Associate Professor RMC and Senior Scientist PSLH (also Ophthalmology)

MASEK, GERALD, B.S.E., M.S.E., Ph.D., Assistant Professor RMC and Assistant Scientist PSLH

MICHAEL, JOEL A., B.S., M.S.C., Ph.D., Associate Professor RMC (also Physiology)

PASSOVOY, MITCHELL, B.A., M.A., Assistant Professor RMC and Senior Scientist PSLH (also Internal Medicine)

PRICE, R., M.S., Instructor RMC ROSEMAN, DAVID, M.D., Associate Professor RMC and Associate Scientist PSLH (also Surgery) ROVICK, ALLEN, B.S., M.S., Ph.D., As-

sociate Professor RMC (also Physiol-

ogy)

SANDBERG, ALLEN, B.S., M.S., Sc.D., Assistant Professor RMC and Assistant Scientist PSLH

SCHAUF, C., Ph.D., Associate Professor RMC

Biomedical Engineering is directly concerned with the application of the concepts and methods of the engineering sciences in biology, medicine and the delivery of health care. The department is divided into four sections: (1) Automation in Health Education, directed by Gerald Gottlieb; (2) Health System Dynamics, directed by Jeffrey Levett; (3) Medical Engineering, directed by Jeffrey Levett; and (4) Scientific Computation, directed by Gerald Masek. Members of the Department work with members of other departments throughout the Medical Center, and are involved in teaching both medical and nursing students.

Research projects range from the development of experimental models of the pathophysiology of multiple sclerosis, in order to evaluate drug effects, to pattern recognition studies of peripheral blood cells. In keeping with national trends, there is a continued effort to find ways to apply sophisticated technology to delivery of health services at all levels, in the physician's office, in community hospitals and in medical centers. The main thrust is toward development of a national health care system in which key medical logics are coupled with physician-extender training programs, broad spectrum voice and visual communication networks, and transportation facilities to enable quick access by citizens in all economic and geographic circumstances to appropriate health care. Typically, each logic is elicited from the minds of medical experts, converted successively into flow charts, question sets, and problem-oriented descriptions, and finally into computer programs for ready retrieval. Peer groups provide critical scrutiny until an optimal management is developed; it is then tested in a demonstration setting. Logics are continuously refined. They are then used to provide norms for diagnostic sequences and treatment plans. On this framework, a highly sophisticated logic for study and treatment of hypertension has been laid out in collaboration with members of the Departments of Preventive Medicine and Biochemistry and the Section of Nephrology of the Department of Medicine, Logics are under development for management of diabetes and thyroid disorders in collaboration with the Section of Endocrinology, and in emergency medical services with Cook County Hospital.

Department of Immunology

GEWURZ, HENRY, M.D., The Thomas J. Coogan Sr., Chairman

BAKER, PATRICIA, B.S., M.S., Instructor RMC

CLAUS, DAVID R., B.S., M.S., Ph.D., Instructor RMC

DEAN, MALCOLM, M.D., Lecturer RMC DICAMELLI, RALPH F., B.S., Ph.D., Instructor RMC

FIEDEL, BARRY A., B.S., Ph.D., Instructor RMC

GEWURZ, ANITA T., B.S., M.D., Instructor RMC. Adjunct Scientist and Adjunct Attending PSLH (also Pediatrics)

GEWURZ, HENRY, B.A., M.D., Professor RMC, Senior Scientist and Senior Attending PSLH (also Pediatrics and Internal Medicine)



#### Immunology . . .

GOLDEN, HARVEY E., B.A., M.D., Associate Professor RMC and Associate Attending PSLH (also Internal Medicine)
LIM, DIOSDADO, M.D., Lecturer RMC
LINT, THOMAS F., B.S., M.S., Ph.D., Assistant Professor

MERKEL, FREDERICK K., B.S., M.D., Associate Professor RMC and Associate Attending PSLH (conjoint to Surgery and Internal Medicine)

MORTENSEN, RICHARD F., B.S., M.S., Ph.D., Assistant Professor RMC

OSMAND, ALEXANDER P., B.S., Ph.D., Assistant Professor RMC

OSOFSKY, STEPHEN G., B.S., M.D., Instructor RMC

ulins. CRP has emerged as a potent modulator of immune and nonimmune inflammatory responses at the level both of the complement system and the T-lymphocyte; elaboration of the underlying mechanisms and a clinical pharmacology based upon these interactions is under active exploration.

SASSETTI, RICHARD J., B.S., M.D., As-

SIEGEL, JOAN, B.S., Ph.D., Assistant

Professor, College of Nursing and

Allied Health Sciences and RMC

THADHANI, KALOO, M.D., Lecturer

YAMAMOTO, KEN-ICHI, M.D., Instruc-

ZEITZ, HOWARD, M.D., Lecturer RMC

**RMC** 

tor, RMC

SUYEHIRA, LISBETH, B.S., Instructor

sociate Professor RMC and Associate Attending PSLH (conjoint to Medicine)

Immunology is cooperating with the Department of Anesthesiology on a study of the effects of anesthesia and surgery upon the immune response, and with the Department of Dermatology in studies of the effects of antibiotics on the immune response. Other current projects deal with immune mechanisms in arthritis, nephritis and hepatitis.

Members of the Department teach undergraduate and postgraduate courses in Immunology and participate in hospital specialty rounds and seminar programs. Three-month elective clerkships are available for undergraduate students. Research and clinical fellowships for longer periods are arranged on an individual basis.

The Department of Immunology provides immunochemical and serologic diagnostic procedures for the Medical Center and evaluates the immune competence and ongoing immune reactions in patients with a variety of diseases.

The primary investigative interests of the Department are: (1) the clinical, developmental and experimental biology of the effectors of the immune response, particularly the complement system; (2) the clinical relevance of the acute phase and its interrelationship with the immune response in health and disease, particularly in neoplasia, blood vessel diseases and allergic responses; and (3) the innovation and implementation of new approaches which utilize the immune response and immunoassays to aid the rapid diagnosis and treatment of disease. Study emphasizes the chemistry and immunobiology of the reactants of the "acute phase," particularly C-reactive protein (CRP), a nonantibody serum protein which shares several structural and functional features with the immunoglob-

## Department of Microbiology

DEINHARDT, FRIEDRICH W., M.D., Chairman

BARAM, PETER, Ph.D., Visiting Professor RMC

BERGHOLZ, CAROLYN M., Ph.D., Instructor RMC

CASTO, BRUCE C., Sc.D., Associate Professor RMC

CROSS, GEOFFREY F., Ph.D., Visiting Associate Professor RMC

DEINHARDT, FRIEDRICH W., M.D., Professor RMC and Senior Scientist PSLH

DEINHARDT, JEAN B., Ph.D., Associate Professor RMC

FALK, LAWRENCE A., Ph.D., Associate Professor RMC and Associate Scientist PSLH

FISHER, LESTER E., D.V.M., Associate Professor RMC

GAVITT, FRANCES, Ph.D., Visiting Assistant Professor RMC

GOODHEART, CLYDE R., M.D., Professor RMC

HATCH, GEORGE G., Ph.D., Instructor

HOEKSTRA, JOHN A., Ph.D., Instructor RMC

#### Microbiology . . .

LANDAU, WILLIAM, Ph.D., Associate Professor RMC and Associate Scientist PSI H

LEVIN, ARLEEN, M.D., Instructor RMC LEVIN, STUART, M.D., Associate Professor RMC and Senior Attending PSLH (also Internal Medicine and Preventive Medicine)

MARCZYNSKA, BARBARA, Ph.D., Assistant Professor RMC

NONOYAMA, MEIHAN, Ph.D., Associate Professor RMC

NORTHROP, ROBERT L., Ph.D., Visiting Associate Professor RMC

The Department of Microbiology provides bacteriological diagnosis, identification of parasites and fungi, and routine virus isolation. Serological studies available include hemagglutination, complement fixation, agar gel diffusion, and more involved studies such as neutralizing antibody titration and fluorescent antibody examination.

The Department maintains a marmoset colony of some 1,400 animals, consisting of a breeding colony of 175 permanent pairs, a nursery, and experimental colonies, the last primarily concerned with studies of oncogenic viruses, hepatitis, and chronic degenerative diseases of the central nervous system. Establishment of a primate model for brain tumors is being pursued in collaboration with the Department of Neurosurgery. Microbiology is also cooperating with the Department of Obstetrics and Gynecology to define the association, if any, between herpes simplex virus type 2 and cervical carcinomas and to develop a suitable experimental primate model. In collaboration with Medical and Surgical Oncology, lymphocytotoxicity is being studied in patients with stage III or IV breast carcinoma, classified as slowly progressive or rapidly progressive diseases, and compared to normal controls. A direct correlation was observed between lymphocytotoxicity values and the disease-free

OGDEN, JAMES D., D.V.M., Assistant Professor RMC

PETERSON, DAVID A., Ph.D., Assistant Professor RMC and Assistant Scientist PSLH

SCHUYTEMA, EUNICE H., Ph.D., Assistant Professor RMC and Assistant Scientist PSLH

WELSH, THOMAS J., Ph.D., Assistant Professor RMC

WIDRA, ABE, Ph.D., Visiting Associate Professor RMC and Consulting Scientist PSLH (also Dermatology) WOLFE, LAUREN G., Professor RMC

interval from mastectomy to onset of first metastasis.

Studies continue, with the Section of Hepatology, Department of Medicine, on experimentally-induced hepatitis A in marmosets and on characterization of the infectious agent(s) of hepatitis A. The susceptibility of marmosets to multiple sclerosis is being investigated in collaboration with the Department of Neurological Sciences. The hypothesis under study is that persistent, latent infection with rubella virus plays a role in the etiology of some forms of rheumatoid arthritis.

The Bacteriology Section and the Infectious Disease Section of the Department of Medicine are analyzing computer-generated data of antibiotic susceptibility patterns as they relate to hospital infection surveillance. Studies are also being conducted on bacterial isolates of particular medical or epidemiological interest.

Members of the department teach in Rush Medical College and in the Department of Microbiology of the University of Illinois Graduate College. They also participate in hospital rounds, especially infectious diseases. A three-month rotation through the department is available as part of the residencies in Internal Medicine, Surgery and Pathology. Research fellowships for longer periods are arranged on an individual basis.

Department of Pharmacology

CARSON, PAUL E., M.D., Chairman CARSON, PAUL E., M.D., Professor RMC and Senior Attending PSLH (also Internal Medicine)

ECANOW, BERNARD, Ph.D., Visiting Professor RMC (also Anesthesiology)

FRISCHER, HENRI, M.D., Ph.D., Associate Professor RMC (also Hematology)
GDALMAN, LOUIS, R.Ph., Professor
RMC (also Internal Medicine)
MOON, BYONG H., Ph.D., Assistant Professor RMC (also Internal Medicine)

Pharmacology . . .

NOOTENS, RAYMOND H., M.D., Assistant Professor RMC (also Ophthamology)

POWERS, RICHARD J., M.D., Assistant Professor RMC (also Internal Medicine) PRANCAN, ARTHUR V., Ph.D., Assistant Professor RMC (also Internal Medicine) RIECKMANN, KARL H., M.D., Visiting Professor RMC

TRENHOLME, GORDON M., M.D., Assistant Professor (also Internal Medicine)

The Department of Pharmacology, established in 1974, provides consultation in clinical pharmacology, supervises and coordinates the pharmacology teaching program for medical and graduate students, participates in the nursing and allied health pharmacology teaching program and provides continuing education for house officers and staff and facilities for clinical and laboratory investigation. Present areas of special interest include the role of enzymes and genetically determined alterations of enzymes in cellular and drug metabolism as related both to normal regulatory processes and to clinical disorders, the chemotherapy of malaria, and the role of prostaglandins, especially in shock. These investigations are pursued at the molecular, cellular and clinical levels and are related to human enzyme variations, genetic and acquired.

The studies on malaria are related to the chemotherapy and immunology of chloroquine-resistant malaria and toxic and metabolic effects of antimalarial drugs. The studies on the role of human enzyme variation, especially as affected by the administration of drugs in the regulation of metabolism in health and in disease, are related to enzyme deficiencies as well as to clinical disorders such as diabetes mellitus, gout, uremia, hepatitis, malnutrition and certain neoplastic diseases. Investigations of cell

membrane-cytoplasmic interactions and the effects of drugs on them have revealed several specific mechanisms which may be operative physiologically in human red cells; for instance, cytoplasmic interactions with membrane NAD(P)ase have been shown to alter the structure and function of several enzymes related clinically to susceptibility to hemolysis, to the regulation of carbohydrate metabolism and the conversion of methemoglobin to hemoglobin. The studies of endotoxin shock concern the efficacy of corticosteroids as therapeutic agents, and metabolic changes responsible for the observed beneficial effect of these drugs. The role of prostaglandins in shock is also under investigation; these compounds have not only been shown to contribute to the shock syndrome, but also, paradoxically, to alter its lethal course.

The Department maintains the Laboratory for Red Cell Genetics and the Pharmacology Research Laboratory. Students, house officers, and fellows are encouraged to join in the clinical and investigational efforts of this department on a part time, quarterly or yearly basis. Formal training programs leading to the Ph.D. degree and the M.D./Ph.D. degree are being formulated.

Department of Physiology

MICHAEL, JOEL A., Ph.D., Acting Chairman

COLTON, CAROL A., Ph.D., Visiting Instructor RMC

COLTON, JOEL S., Ph.D., Visiting Assistant Professor RMC

GOTTLIEB, GERALD, Ph.D., Associate Professor RMC (also Biomedical Engineering)

HEGYVARY, CSABA, M.D., Associate Professor RMC (also Internal Medicine) MICHAEL, JOEL A., Ph.D., Associate Professor RMC (also Neurological Sciences)

ROVICK, ALLEN, Ph.D., Associate Professor RMC (also Biomedical Engineering)

SCHAUF, CHARLES, Ph.D., Assistant Professor RMC (also Biomedical Engineering and Neurological Sciences)



Physiology . . .

Research activities of the Department of Physiology fall into three broad areas: (1) biological membranes and their various processes; (2) information processing in the central nervous system; and (3) control of the peripheral and the cerebral vasculature.

Neurophysiological studies of information processing in the mammalian central nervous system are directed towards an understanding of the mechanisms of the visual system (including the processes involved in detection of a moving retinal image), the effects of hypoxia and hyperthermia on such processes, and the organization of the human motor system primarily at the spinal cord.

Different parts of the central nervous system are differentially affected by hypoxia, and studies presently underway are examining the role that regional differences in cerebrovascular mechanisms may play in this phenomenon. To this end a new technique for obtaining measurements of regional blood flow is under development. Other circulatory investigations are aimed at evaluating the effects of the arterial pressure pulse on the ability of blood vessels to maintain constrictor tone and on the ability of the vascular smooth muscle of small blood vessels to respond to vaso-active agents.

Procedures are also being developed for the identification and purification of the digitalis receptor of the heart—an essential step in a long-term project to learn more about the reaction mechanisms of the sodiumpump as it relates to the specific actions of digitalis. This in turn has important implications for improved chronic digitalis therapy and the prevention of digitalis toxicity.

To develop a rational symptomatic therapy for multiple sclerosis and to understand the basic mechanism of action of drugs used in clinical neurology, members of the Department of Physiology are studying voltage-clamped giant axons to elucidate the voltage dependent permeability changes characteristic of nerve membranes, and the effects of a number of different drugs on these processes.

Members of the department teach at both undergraduate and postgraduate levels in the Medical Center and collaborate with other departments within the Medical Center and in neighboring institutions in both teaching and research. Teaching activities at Rush include a core Physiology course, elective courses, and supervision of research training.

Department of Psychology and Social Sciences

CHEIFETZ, DAVID I., Ph.D., Chairman BERKSON, GERSHON B., B.A., M.S., Ph.D., Visiting Professor RMC

BROCKEN, CECILIA, B.S., M.A., Ph.D., Associate Professor RMC and Associate Scientist PSLH (also Pediatrics)

CHEIFETZ, DAVID I., M.A., Ph.D., Professor RMC and Senior Scientist PSLH

CHRISTMAN, LUTHER, B.S., Ed,M., Ph.D., Professor RMC and Senior Scientist PSLH

CLARK, DAVID C., B.A., Instructor RMC (also Psychiatry)

COSTELLO, CHRISTINE, B.S., Ed.M., Instructor RMC and Adjunct Scientist PSLH (also Pediatrics)

COUNTE, MICHAEL A., B.A., M.A., Ph.D., Assistant Professor RMC

DAVIS, LUCILLE, A.A., B.S.N., M.S.N., Ph.D., Associate Professor RMC (also College of Nursing and Allied Health Sciences)

EXUM, DOLORES B., B.A., M.S.W., Associate RMC (also Preventive Medicine)

FELDMAN, HOWARD S., A.B., M.S., Ph.D., Assistant Professor RMC and Assistant Scientist, PSLH

GARRON, DAVID C., B.A., M.A., Ph.D., Professor RMC and Senior Scientist PSLH

GUISE, GRACIA, B.S., M.S., Associate RMC and Assistant Scientist PSLH HARTINGS, MICHAEL F., B.A., M.S.,

HARTINGS, MICHAEL F., B.A., M.S., Ph.D., Assistant Professor RMC and Associate Scientist PSLH

HEGYVARY, SUE T., B.S.N., Ph.D., Assistant Professor RMC (also College of Nursing and Allied Health Sciences)

KASZNIAK, ALFRED W., B.S., M.A., Instructor RMC and Adjunct Scientist PSLH

LEAVITT, FRANK, B.A., Ph.D., Associate Professor RMC and Senior Scientist PSLH

LINDNER, RONALD S., B.A., Ph.D., Associate Professor RMC and Associate Scientist PSLH

Psychology and Social Sciences . . .

LIPOFF, DENNIS A., B.S., M.B.A., Ph.D., Assistant Professor RMC and Assistant Scientist PSLH (also Psychiatry)

McNAMARA, BARRY T., B.S., J.D., Honorary Faculty RMC

MARTIN, DAN M., Ph.D., Honorary Faculty RMC

MENDOZA, MARILYN A., B.A., M.S., Instructor RMC and Adjunct Scientist PSLH (also Pediatrics)

MONCRIEFF, ELLSWORTH H., B.A., Complemental Faculty RMC

PAVLOU, MARCIA M., B.A., M.A., Instructor RMC and Adjunct Scientist PSLH

PISANI, VINCENT D., B.S., M.A., Ph.D., Assistant Professor RMC and Assistant Scientist PSLH (also Psychiatry)

The Department of Psychology and Social Sciences offers a full-time internship, approved by the American Psychological Association, for third and fourth year level students. Interns elect one of the five basic experience training options of the program: General Clinical Psychology; Community Psychology; Clinical Child Psychology; Clinical Neuropsychology; or Clinical Research Psychology.

All options share a common emphasis on a broad understanding of the life adaptations of children and adults. The program provides both didactic work and clinical experience aimed at developing professional competence in the diagnosis, treatment, and research of pathological life adaptations, and toward fostering, as well, a professional concern for preventive psychological practices.

Children, adolescents, and adults of all ages and all varieties of transient and major psychological disturbance, functional and organic, are seen for diagnosis and treatment. The Department of Psychiatry maintains a 61-bed inpatient unit for children and adults, a day hospital offering both child and adult programs, outpatient clinics for children and adults, and community-based mental health services. Psychologists also have significant clinical and research interests in the Departments of Pediatrics, Neurology, Medicine, Preventive Medicine, and Obstetrics and Gynecology, All these elements of

PSARRAS, GEORGETTE M., B.A., M.A., Ph.D., Assistant Professor RMC and Assistant Scientist PSLH (also Psychiatry)

SCHNEIDER, ANNE A., R.N., B.A., M.A., Ph.D., Instructor RMC

SCHOENENBERGER, JOSEPH C., B.S., M.S., Ph.D., Assistant Professor RMC and Assistant Scientist PSLH (also Preventive Medicine)

ULRICH, LARRY K., B.A., M.Div., S.T.M., D.Min., Assistant Professor

WATSON, LAURA H., M.A., Instructor, RMC and Adjunct Scientist PSLH (also Psychiatry)

the hospital are also resources for the training programs of this Department. Few institutions can provide, under one roof, so varied a population for psychological study and training purposes.

The training philosophy of the Department holds that an intern comes here as a mature, if vet emerging, professional, capable of selfdirection in planning and to some extent implementing his training, if appropriate information and expectations are communicated. Since interns are considered full-fledged department members, their appointments as interns must be submitted for review to the Department's Committee on Academic and Professional Affairs; they attend and vote at departmental meetings, and are represented on the Departmental Council, an advisory body to the Chairman, and on all permanent and ad-hoc departmental committees: they also hold academic rank as Assistant in Rush Medical College. No duties are relegated to trainees as beneath the interest of the staff. Every member of the staff is also a member of the training staff. While debate for its own sake is discouraged, diversity of points of view is expected and supported.

During the year every trainee receives thoroughly detailed and personal supervision of his clinical activities, consultation, and research. As trainees develop increased competence through experience, they become able to function with in-



Psychology and Social Sciences . . .

creased independence. The continuing provision of extensive supervisory time during the year is based on the premise that developing competence does not, and should not, exhaust the capacity of trainees to learn new material or to develop new insights about old material in the later part of the training year.

Individual supervision in psychodiagnostics is provided through rotating assignments, by case, to members of the staff. Initially, the trainee and supervisor work quite closely as a diagnostic team, from planning of examination tactics through ultimate consultation. Soon the trainee is given all the independence of action he is ready to assume.

Trainees may expect supervision

from an experienced therapist in psychology, psychiatry, or psychiatric social work. Clinical seminars available on an optional basis provide a context for broader learnings in psychotherapy, often in conjunction with trainees and staff from other disciplines. Staff sociologists and members of other departments are also available for consultation. Each intern's progress is evaluated formally mid-year, and again at the end of the internship. This evaluation is a composite assessment of the strengths and weaknesses of the intern as determined by his supervisors and the training director. A formal feedback session with the training director allows for clarification of staff views.

General Clinical Psychology Internship This program emphasizes the particularly important contribution the clinical psychologist can make in the general hospital, including the psychiatric setting. In some measure, this is the broadest option available, providing solid clinical training and diverse clinical experience for the intern who is not already committed to a specialty field.

Diagnostic training focuses on understanding the behavioral and emotional disturbances frequently associated with physical illnesses, elucidating character problems, analysis of thought processes and pathologies, and the study of intellectual deficits associated with neurologic disorders. The intern will combine his maturing skills with those of psychiatrists, neurologists, pediatricians, general medical practitioners, and other staff engaged in analysis and treatment. The intern can expect to work with patients presenting a spectrum of mild to severe psychological problems, covering the range from organic psychopathologies to the more

purely functional disorders.

The intern's assignments will include an acute, intensive inpatient unit, outpatient clinics, day hospital, and consultation services. The intern may also have an assignment to the community health clinic. These assignments introduce the trainee to the professional problems and possibilities specific to certain settings: learning what kinds of information and assistance are sought from the psychologist in these settings, and developing flexible clinical and communicative skills to meet the demands of a complex professional life.

Therapy experience and training is typically with patients individually and in groups in the outpatient setting. It is intensively supervised by therapists of differing backgrounds and theoretical points of view. Additional training in the general program is provided through staffs, ward meetings, and seminars as well as by those psychology staff conferences which form the stable part of the internship year.

Clinical Child Psychology Internship

The clinical child psychology intern is encouraged to define his professional role within the broad spectrum of child behavior. The program emphasizes familiarization and ap-

propriate techniques for dealing with the manifold problems of children as they occur in the psychiatric, the pediatric, and the community setting. The intern is guided toward recClinical Child Psychology . . .

ognition of and management of children's emotional problems before they become disabling, concentrating on prevention and early amelioration. The intern trains in the Department's pediatric psychology service, the child psychiatry clinic and inpatient service, and the Children's Therapeutic Day School. Concerning himself with the child who is a medical patient, the pediatric psychologist develops skills in recognizing nascent emotional disorders and those emotional and familial problems which complicate the management of medical illness. The trainee also sees children whose particular disabilities require psychological as well as medical management, such as children with birth defects and language disorders. The pediatric psychologist is concerned, too, with psychological aspects of pediatric hospitalization and surgical procedures. The Children's Therapeutic Day School is for children of primary school age who are unable to maintain an adjustment

that permits them to remain in or benefit from their community schools. The program provides day care in a therapeutic setting that includes classroom work, psychotherapy, and behavior modification. The trainee participates in all stages of program and patient evaluation, treatment, and follow-up care.

The trainee's diagnostic training will center on his work with children, but he will work with both parents and children in psychotherapy and brief counseling. The trainee may be located in an inner-city neighborhood adjacent to the hospital. Here he will have opportunity, building on his earlier experience, to develop consultative skills in contacts with such community agents as visiting nurses, school nurses, and teachers. Visits to well-baby clinics, local schools, and other child-care agencies, along with staffs and seminars which tie into the trainee's clinical experience, round out the training.

Community Psychology Internship

The development of this program is stimulated by the hospital's own involvement in community-based health and mental health services, as well as by the generally increasing professional interest in community-centered mental health action.

Mile Square Health Center nearby has permitted the shaping of a community psychology traineeship that is well founded on the hospital's established medical and psychological programs, and, at the same time, widely open to experimental approaches to the mental health problems of a much neglected community.

While the major field of action in this internship differs from that of the other training options, similar goals obtain. While some aspects of community health programs call for innovative techniques, this internship program is built on the premise that clinical work by the psychologist in the community should rest upon foundation skills in clinical psychology. The trainee will have ample opportunity to attempt experimental

approaches to the many problems presented in the community, but with an educated awareness of the need to amplify and expand upon his clinical psychological skills. Thus, this program also prepares the psychologist to be able to perform the more traditional psychological service functions when the need devolves upon him in his community work.

The intern who elects this program is encouraged to define himself as a person who is involved at all levels of intervention in the community as a clinical psychologist and a behavioral scientist. Two goals obtain for the community intern: (1) to gain an intimate knowledge of the community, its agencies, and its institutions, and (2) to apply the body of knowledge which is uniquely psychology's to problems which are generic to all communities and specifically to the Mile Square community.

Clinical Neuropsychology Internship

This program is intended for students who have a defined interest in clinical or clinical research careers in neuropsychology. The program emphasizes the psychological study of the cognitive and affective sequelae of disorders of the central nervous system and the clinical psychologist's contribution to the diagnosis and management of patients suffering from acute and chronic neurological disorders and organic psychopathologies. Perceptual, cognitive, and affective disabilities are described: the relation of these disabilities to the organic pathology is explored; and the implications of such disabilities for life adaptation are defined. There is close and continuing collaboration and consultation with members of

the neurology, pediatrics, neurosurgery, and psychiatry services. The intern in the clinical neuropsychology program will gain experience with neurological disorders having developmental consequences, such as in the pediatric birth defects setting. as well as with the disorders reflective of acute injury and disease, and of the changes of aging. Ample experience with patients who represent normative baseline neurological functioning is also an important part of this program. Although clinical diagnostic skills receive major emphasis in this program, counseling and psychotherapy techniques are also recommended as desirable elective options.

Clinical Psychology Research Internship The aim of this elective program is to provide the sound clinical back-ground needed for the intern whose basic interest lies in the research exploration of personality, psychopathology, or other clinical psychological issues. The program stresses exposure to clinical problems, clinical techniques, and the clinical setting. The internship is not limited to experience with the traditionally defined

mental disorders, but includes experiences with psychological aspects of various illnesses and situations, with the widely varied populations found within the Medical Center, or with the various research teams among the staff. This internship is not designed to support dissertation research; nonetheless, the personal research interests of the trainee are honored.

New Programs In Health Care Psychology

The autonomous relationship of a department like this to an institution concerned with health care of large populations in an innovatively responsible way widens the horizon of professional psychological involvement. The Department has recently begun to focus on the role of professional clinical psychologists in the delivery of health care. Clinical psychologists are being called upon to contribute directly to the management and treatment of many medical conditions which require behavioral. psychological, and social adaptation by those afflicted. For the most part, new program development has occurred outside the context of psychopathology, and in some cases outside the more general field of "mental health." In many of these programs, the Department hopes to anticipate

the role of psychologists in the future under programs of national health insurance. Three pilot programs currently permit of participatory involvement by interns.

First, with the Department of Neurology, a comprehensive patient care program is underway for persons with multiple sclerosis. In addition to complete neurological care, all patients are seen by a staff psychologist and evaluated for inclusion into one or more of the M.S. Center programs staffed and run by psychologists, to assist them with the multiple behavioral, psychological, and social adaptations required of them by this disabling, unpredictable disease. Secondly, a staff psychologist has recently been appointed to explore ways of assisting persons with medically related conditions which are



New Programs in Health Care Psychology . . .

not amenable to cure, or even satisfactory management through the application of known medical regimens alone. Essential hypertension, chronic arthritis, chronic and acute pain, diabetes, and persistent GI distress often leave the afflicted individual with painful and discomforting symptoms which interfere with previously satisfying psychological and social adaptation. Through application of a variety of new biofeedback and behavior modification techniques, psychologists might help to eliminate presenting symptoms or facilitate more comfortable symptomatic ad-

justments. Thirdly, a cognitive function laboratory has been established for the clinical diagnosis and research study of conditions associated with central nervous system pathology. Drawing on the Department's considerable depth in the area of clinical neuropsychology, and upon close collaboration with staff neurologists, this service has begun programs of clinical consultation and research with geriatric populations. Interns are expected to participate in the development and implementation of new department programs.

Research in the Training Year

Research interests of trainees are highly valued; provision can be made for research work for interns not electing the strong research option of the clinical psychological research program. The Department has its own research laboratories with three-channel tachistoscope, eyemovement camera, flicker-fusion apparatus, psychomotor apparatus, high-speed computer facilities, and consultative assistance from biostatisticians, biomedical engineers, and other medical and scientific staff.

Training Staffs and Seminars

Many elective courses in the Rush Medical College curriculum such as psychopharmacology, endocrine systems, or neuroanatomy would be open for auditing by interns. The Department staff also offers specially designed clinical seminars which can be implemented at the request of the interns and the consent of staff, including seminars on: Psychotherapy, Diagnostic Interviewing, Clinical Neuropsychology, Clinical Behavior Genetics, Group Dynamics, Social Deviance, Child Psychotherapy, Human Sexual Dysfunction, Family Treatment, Professional Psychology, Clinical Physiological Psychology, and Clinical Research.

Such seminars make use of the facilities of the Audio-Visual Center of the Medical Center, which provides one-way mirror rooms, tape recordings and video-tape television capabilities. This department has acquired cassette and reel-type tape recorders, a bug-in-the-ear electronic device, and two one-way mirror rooms for the exclusive use of Department staff and trainees. An extensive tape and book library

provides an additional resource.

The Clinical Psychology Internship Program is approved by the American Psychological Association for Type G training. Five internship appointments are available for the year; stipends are provided through Medical Center funds and an NIMH training grant. One internship position is available for an exceptional student from a non-APA-approved graduate program. Interns are appointed at the rank of Assistant on the Rush Medical College faculty.

Applications are considered independently. Appointment procedures follow the guidelines of the Association of Psychology Internship Centers. Appointment awards are announced on the second Monday of February, and applicants have five days to accept or decline the appointment offer. Early application is always encouraged, though no deadline is maintained.



# and Services

Robert W. Larton, M.D. ociate Dean Services and

Medical Science

e President Idical Affairs

# Department of Dermatology

MALKINSON, FREDERICK D., D.M.D., M.D., Chairman

BIELINSKI, STEFAN, B.S., M.D., Assistant Professor, RMC and Associate Attending, PSLH

BLANKENSHIP, MARSHALL, M.D., Assistant Professor, RMC and Assistant Attending, PSLH

EARLES, RENE, B.S., M.D., Instructor, RMC and Assistant Attending, PSLH

ERTLE, JAMES, M.D., Assistant Professor, RMC and Assistant Attending, PSLH

FINNERUD, CLARK W., B.S., M.D., Emeritus Professor, RMC and Emeritus, PSLH

HAEBERLIN, JOHN B., JR., M.D., Emeritus Professor, RMC and Emeritus, PSLH

HETREED, FRANCIS W., M.D., Emeritus Professor, RMC and Emeritus, PSLH

KAPLAN, SIDNEY, M.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH MALKINSON, FREDERICK D., D.M.D., M.D., Professor, RMC and Senior Attending, PSLH

O'DONOGHUE, MARIANNE N., A.B., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

PEARSON, ROGER W., M.D., Professor, RMC and Senior Attending, PSLH

ROSTENBERG, ADOLPH, JR., M.D., Emeritus, RMC and Emeritus, PSLH SMITH, EDWIN, M.D., Emeritus

Professor, RMC and Emeritus, PSLH SPINKA, HAROLD M., B.S., M.D.,

SPINKA, HAROLD M., B.S., M.D., Assistant Professor, RMC and Associate Attending, PSLH

STROHL, LEE H., M.D., Instructor, RMC and Assistant Attending, PSLH

SZYMANSKI, FREDERICK J., M.D., Professor, RMC and Senior Attending, PSLH

WIDRA, ABE, B.A., M.S., Ph.D., Visiting Associate Professor, RMC and Consulting, PSLH (also Microbiology)

The Department of Dermatology is devoted to patient care, medical student teaching, resident training, and clinical and laboratory research. Outpatient clinics and an inpatient service, as well as consultations for hospitalized patients, are provided. All private patients in the offices of the full-time staff are also seen by residents and medical students. The Department conducts regular formal and informal teaching sessions for house staff and students as well as clinical sessions for the entire full and part-time departmental staff, Clinical instruction for students is provided by a three-month course in the second medical school year. This course relates the physiology and biochemistry of the skin to clinical disease processes and introduces the students to clinical dermatology with many case demonstrations. In addition, the Department accepts two third or fourth year medical students per month for an elective period. Medical students who elect to rotate through the Dermatology Department also see consultations and outpatients, and assume responsibilities for the inpatient service—all under the supervision and instruction of full-time staff members.

Three main areas of laboratory research are currently under active investigation: (1) the effects of ionizing radiation and drugs on proliferating hair matrix cells; (2) ultrastructural analysis of skin reactions to injury, especially from ionizing radiation and chemotherapeutic agents; and (3) metabolism studies of steroids by sebaceous gland cells. Active areas of clinical research include effects of antibiotics on immunologic responsiveness, certain types of skin reactions to staphylococcal infections, and ultrastructural pathology of blistering disease.

The Department of Dermatology is approved for the full three-year training program for residents in Dermatology and generally accepts one resident each year. Currently four residents are in training.

Department of Internal Medicine

SCHWARTZ, THEODORE B., M.D., Chairman KARK, ROBERT M., M.D., Associate Chairman TROBAUGH, FRANK E., JR., M.D., Associate Chairman ADLER, SOLOMAN S., B.S., M.D., Instructor, RMC and Adjunct Attending, PSI.H

### Internal Medicine . . .

- AGGARWAL, RAJ K., B.Sc., Ph.D., Assistant Professor, RMC and Assistant Scientist, PSLH (also Biomedical Engineering)
- AKRE, OSMUND H., B.A., M.D., Assistant Professor, RMC and Senior Attending, PSLH
- ASHBACH, DAVID L., A.B., M.S., M.D., Instructor, RMC and Adjunct Attending, PSLH
- BACHMANN, FEDOR W., M.D., Visiting Associate Professor, RMC and Consultant, PSLH
- BACKER, BARBARA M., A.B., M.D., Instructor, RMC and Assistant Attending, PSI.H
- BACUS, JAMES W., B.S., Ph.D., Assistant Professor, RMC and Associate Scientist, PSLH (also Biomedical Engineering)
- BAKKEN, C. DAVID, A.B., M.D., Instructor, RMC and Adjunct Attending, PSLH
- BALDWIN, DAVID, A.B., M.D., Associate Professor, RMC and Senior Attending, PSLH
- BARTON, EVAN M., A.B., M.D., Professor, RMC and Senior Attending, PSLH
- BECKER, FRANK O., M.D. Associate Professor, RMC and Associate Attending, PSLH
- BLAAUW, BERNARD B., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- BLACK, ARNOLD, B.S., M.D., Professor, RMC and Senior Attending, PSLH
- BOGDONOFF, MAURICE L., B.S., M.D., Professor, RMC and Senior Attending, PSLH (also Diagnostic Radiology)
- BOLTON, CORNELIUS, B.S., M.D., Associate, RMC and Adjunct Attending, PSLH
- BONBREST, H. Constance, A.B., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- BREGMAN, ANDREW, M.D., Instructor, RMC and Adjunct Attending, PSLH
- BREUHAUS, HERBERT C., B.S., M.D., Associate Professor, RMC and Senior Attending, PSLH
- BRINEY, ROBERT R., B.S., M.D., Visiting Associate Professor, RMC and Consultant, PSLH
- BROWN, R. Gordon, A.B., M.D., Associate Professor RMC and Senior Attending. PSLH
- BROWN, WILLIAM C., B.S., M.D., Assistant Professor, RMC and Senior Attending, PSLH
- BUCHELERES, H. GUNTHER, M.D., Professor, RMC and Senior Attending, PSLH (also Pediatrics)
- CAMPBELL, JAMES A., B.A., M.D., Professor, RMC and Senior Attending, PSLH
- CAPPS, RICHARD B., B.S., M.D., Professor, RMC and Senior Attending, PSLH
- CARSON, PAUL E., M.D., Professor, RMC and Senior Attending, PSLH (also Pharmacology)

- CARTON, ROBERT W., A.B., M.D., Professor, RMC and Senior Attending, PSLH
- CAVANAUGH, STEPHANIE, M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Psychiatry)
- CHADHA, GURBACHAN S., M.D., Instructor, RMC and Adjunct Attending PSLH
- CLARK, JAMES G., B.S., M.D., Assistant Professor, RMC and Associate Attending, PSLH
- COLANDREA, MICHAEL A., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- COLE, EDMUND R., B.S., M.S., Ph.D., Assistant Professor, RMC and Associate Scientist, PSLH
- COLEMAN, HENRY N., B.S., M.D., Associate Professor, RMC and Associate Attending, PSLH
- COOGAN, THOMAS J., B.S., M.D., Assistant Professor, RMC and Associate Attending. PSLH
- DEAM, MALCOLM A., B.A., M.D., Instructor, RMC and Adjunct Attending, PSLH
- DEDERICK, MARGARIDA M., B.S., M.D., Instructor, RMC and Adjunct Attending, PSLH (also Psychiatry)
- DeJONG, GEORGE E. A., M.D., Instructor, RMC and Assistant Attending, PSLH
- DEVETSKI, ROBERT L., M.D., Visiting Assistant Professor, RMC and Assistant Attending, PSLH
- DeYOUNG, HENRY D., B.S., M.D., Associate Professor, RMC and Senior Attending, PSLH
- DOW, JAMES W., B.S., M.D., Professor, RMC and Senior Attending, PSLH (also Biomedical Engineering)
- ECONOMOU, PETER G., B.S., M.S., M.D., Assistant Professor, RMC and Associate Attending, PSLH
- EVANS, THELMA J., B.S., M.D., Instructor, RMC and Adjunct Attending, PSLH
- EYBEL, CARL E., B.S., M.S., M.D., Instructor, RMC and Adjunct Attending, PSLH
- FARAGO, PETER J., B.A., M.D., Lecturer, RMC and Senior Attending, PSLH
- FELIX, ROBERT E., M.D., Assistant Professor, RMC and Senior Attending, PSLH
- FLANAGAN, GEORGE C., M.D., Associate Professor, RMC and Senior Attending, PSLH
- FOX, JACOB H., M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Neurological Sciences)
- FRANKLIN, JAMES L., B.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- FRIED, WALTER, B.S., M.D., Visiting Associate Professor, RMC and Consultant, PSLH
- FRISCHER, HENRI, M.D., Ph.D., Associate Professor, RMC and Associate Attending, PSLH (also Pharmacology)



### Internal Medicine . . .

- GALT, RAYMOND M., A.B., M.D., Assistant Professor, RMC and Associate Attending, PSLH
- GARLAND, JOHN T., B.A., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- GARR, WILLIAM R., B.A., M.D., Associate, RMC and Assistant Attending, PSLH
- GEWURZ, HENRY, B.S., M.D., Professor, RMC and Senior Scientist and Senior Attending, PSLH (also Immunology and Pediatrics)
- GLICKMAN, PAUL B., Ph.D., M.D., Associate Professor, RMC and Senior Attending PSLH
- GOLDEN, HARVEY E., B.A., M.D., Assistant Professor, RMC and Associate Attending, PSLH
- GOLDSTEIN, MAURICE S., M.D., Professor, RMC and Consultant, PSLH
- GRAETTINGER, JOHN S., M.D., Professor, RMC and Senior Attending, PSLH
- GREGORY, STEPHANIE A., B.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- HARRIS, ALAN A., M.D., Instructor, RMC and Adjunct Attending, PSLH
- HAUSER, ROBERT G., B.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- HEDBLOM, CARL A., A.B., M.D., Associate Professor, RMC and Senior Attending, PSLH
- HELLER, PAUL, M.D., Visiting Professor, RMC and Consultant, PSLH
- HERTKO, LEONARD J., M.D., Associate Professor, RMC and Associate Attending, PSLH
- HIGHSTONE, WILLIAM H., B.S., M,D., Emeritus Professor, RMC and Consultant, PSLH
- HOELTGEN, THOMAS M., B.A., M.D., Instructor, RMC and Adjunct Attending, PSLH
- HORWITT, MAX K., Ph.D., Visiting Professor, RMC and Consultant, PSLH
- HUDSON, EDSEL K., B.S., M.D., Associate Professor, RMC and Senior Attending, PSLH (also Preventive Medicine)
- ING, TODD S., B.S., M.D., Assistant Professor, RMC and Associate Attending, PSLH
- JAMIESON, RODNEY A., B.S., M.D., Associate, RMC and Assistant Attending, PSLH
- JENNINGS, JOHN C., B.A., M.D., Instructor, RMC and Adjunct Attending, PSLH
- JOHNSON, ROBERT E., M.D., Ph.D., Visiting Professor, RMC and Consultant, PSLH
- JONES, FRANK W., A.B., M.D., Assistant Professor, RMC and Consultant, PSLH
- JONES, JOHN C., B.S., M.D., Instructor, RMC and Assistant Attending, PSLH JONES, PHILIP N., M.D., Associate Pro-
- fessor, RMC and Senior Attending, PSLH JUPA, JAMES E., B.S., M.D., Instructor, RMC and Adjunct Attending, PSLH

- KARK, ROBERT M., B.A., F.R.C.P., Professor, RMC and Senior Attending, PSLH
- KASSRIEL, ROBERT S., A.B., M.D., Instructor, RMC and Assistant Attending, PSLH (also Preventive Medicine)
- KELLY, FRANK B., JR., B.S., M.D., Associate Professor, RMC and Senior Attending, PSLH
- KELLY, FRANK B., SR., B.S., M.D., Emeritus Professor, RMC and Consultant, PSLH
- KESLER, R. LINCOLN, A.B., M.D., Associate Professor, RMC and Senior Attending, PSLH
- KHAN, ABDUL K., M.B.B.S., Instructor, RMC and Adjunct Attending, PSLH
- KINNEY, JANET, B.S., M.D., Associate Professor, RMC and Senior Attending, PSLH
- KIRKLAND, WALLACE, A.B., M.D., Associate Professor, RMC and Senior Attending, PSLH
- KLINGER, ALFRED D., B.S., M.D., Associate, RMC and Adjunct Attending, PSLH (also Preventive Medicine)
- KNOSPE, WILLIAM H., B.A., B.S., M.D., M.S., Professor, RMC and Senior Attending, PSLH
- KNOTT, ALBERT P., JR., A.B., M.D., Instructor, RMC and Adjunct Attending, PSLH
- KOFMAN, SIDNEY, M.D., Visiting Assistant Professor, RMC and Associate Attending, PSLH
- KORNEL, LUDWIG, M.D., Ph.D., Professor, RMC and Senior Attending, PSLH
- KRAMER, NEIL, M.D., Instructor, RMC and Adjunct Attending, PSLH
- LAING, GRANT H., M.S., M.D., Emeritus Professor, RMC and Consultant, PSLH
- LASHOF, JOYCE C., A.B., M.D., Professor, RMC and Senior Attending, PSLH (also Preventive Medicine)
- LEPPER, MARK H., B.A., M.D., Professor, RMC and Senior Attending, PSLH
- LEVIN, STUART, B.M., M.D., Associate
  Professor, RMC and Senior Attending,
  PSLH (also Microbiology and Preventive Medicine)
- LEVINE, CHARLOTTE C., B.A., M.D., Instructor, RMC and Adjunct Attending, PSLH (also Preventive Medicine)
- LEVINE, MILTON D., B.A., Sc.D., M.D., Associate Professor, RMC and Senior Attending, PSLH (also Preventive Medicine)
- LEWIS, EDMUND J., B.S., M.D., Professor, RMC and Senior Attending, PSLH
- LIEBSON, PHILIP R., A.B., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- LIN, MIN H., M.B.B.S., Instructor, RMC and Adjunct Attending, PSLH
- MARTIN, JOHN E., B.S., M.D., Instructor, RMC and Assistant Attending, PSLH

Internal Medicine . . . | MATTHEW, GUY R., B.A., M.D., Associate Professor, RMC and Senior Attending, PSLH (also Diagnostic Radiology)

> MATTIS, RICHARD C., B.S., M.D., Instructor, RMC and Adjunct Attending, PSLH

McCREARY, PATRICIA A., A.B., M.D., Assistant Professor, RMC and Associate Attending, PSLH (also Preventive Medicine)

McFATE, PATRICIA, Ph.D., Visiting Associate Professor, RMC and Consultant, PSLH

McKENNA, REJALAXMI, M.B.B.S., Instructor, RMC and Adjunct Attending, **PSLH** 

McLEOD, BRUCE, M.D., Instructor, RMC and Adjunct Attending, PSLH

MEDENIS, VIDVUDS, M.D., Assistant Professor, RMC and Assistant Attending, PSLH

MEREDITH, PAUL A., A.B., M.D., Associate Professor, RMC and Assistant Attending, PSLH

MERKEL, FREDERICK K., B.S., M.D., Associate Professor, RMC and Associate Attending, PSLH (also General Surgery)

MERWICK, PATRICIA A., B.S., M.D., Instructor, RMC and Adjunct Attending, PSLH

MESSER, JOSEPH V., A.B., M.D., Professor, RMC and Senior Attending, PSLH

MEYER, JOHN H., M.D., Associate, RMC and Assistant Attending, PSLH (also Preventive Medicine)

MOON, BYONG H., M.S., Ph.D., Assistant Professor, RMC and Assistant Scientist, PSLH (also Pharmacology)

MORRIS, ARTHUR M., B.A., M.D., Instructor, RMC (West Suburban) and Adjunct Attending, PSLH

MUEHRCKE, ROBERT C., B.S., M.D., Associate Professor, RMC (West Suburban) and Consultant, PSLH

MUENSTER, JOSEPH J., M.D., Associate Professor, RMC and Senior Attending, PSLH (also Pediatrics)

NELSON, BERTRAM G., B.S., M.D., Professor, RMC and Senior Attending, **PSLH** 

NOBLE, BARBARA W., B.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Preventive Medicine)

NORTHROP, GRETAJO, B.S., Ph.D., M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also

Ob/Gyn) O'BRIEN, DONALD E., A.B., M.D., Associate RMC and Associate Attending,

OYAMA, JOSEPH H., B.S., M.D., Assistant Professor, RMC (Christ Hospital) Assistant Attending, PSLH

PARSONS, ROBERT, B.A., M.D., Visiting Assistant Professor, RMC and Adjunct Attending, PSLH

PASSOVOY, MITCHELL, B.A., M.A., Assistant Professor, RMC and Senior Scientist, PSLH (also Biomedical Engineering)

PAUL, OGLESBY, M.D., Visiting Professor, RMC and Consultant, PSLH

PAUL, TARAK N., B.S., M.D., Instructor, RMC and Adjunct Attending, PSLH

PAYNE, JOHN A., B.S., M.D., Instructor, RMC and Adjunct Attending, PSLH PERLIA, CHARLES P., B.S., M.D., As-

sociate Professor, RMC and Senior Attending, PSLH

PHELAN, WILLIAM H., B.S., M.D., Associate Professor, RMC and Senior Attending, PSLH

PIERCE, MILA I., B.S., M.D., Distinguished Professor, RMC and Consultant, PSLH (also Pediatrics)

POMERANTZ, RHODA S., A.B., M.D., Assistant Professor, RMC and Associate Attending, PSLH (also Preventive Medicine)

POPPER, MICHAEL S., B.S., M.D., Instructor, RMC and Adjunct Attending, **PSLH** 

POST, JOHN, M.D., Emeritus Assistant Professor, RMC and Consultant, PSLH

POWERS, RICHARD J., B.S., M.D., Assistant Professor, RMC and Associate Attending, PSLH (also Pharmocology)

PRANCAN, ARTHUR V., B.S., Ph.D., Instructor, RMC and Assistant Scientist, PSLH (also Pharmacology)

RAMSEY, MICHAEL M., M.D., Instructor, RMC and Adjunct Attending, **PSLH** 

REID, ROBERT H., A.B., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

RENNIE, I. DRUMMOND B., M.R.C.P., Assistant Professor, RMC and Associate Attending, PSLH

REYNOLDS, ROBERT E., B.A., M.D., Associate Professor, RMC and Associate Attending, PSLH

RIECKMANN, KARL H. W., M.D., D.P.H., Associate Professor, RMC and Associate Attending, PSLH (also Pharmacology)

RIFF, DONALD P., M.D., Assistant Professor, RMC and Assistant Attending, **PSLH** 

ROOT, THOMAS E., B.S., M.D., Instructor, RMC and Adjunct Attending, **PSLH** 

ROSENBERG, MARVIN S., B.S., M.D., Associate Professor, RMC and Senior Attending, PSLH

ROSENBLATE, HOWARD J., B.A., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

ROSKELLEY, RIGBY C., B.S., M.D., Professor, RMC and Senior Attending, **PSLH** 

RYAN, WILL G., M.D., Associate Professor, RMC and Senior Attending, PSLH

### Internal Medicine . . .

SANTUCCI, BARBARA, B.A., M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Pediatrics)

SASSETTI, RICHARD J., M.D., Assistant Professor, RMC and Senior Attending, PSLH

SCHEINER, DAVID L., B.A., M.D., Assistant Professor, RMC (Christ Hospital) and Assistant Attending, PSLH (also Preventive Medicine)

SCHICK, ARMIN F., B.S., M.D., Visiting Assistant Professor, RMC and Consul-

tant, PSLH

SCHOENBERGER, JAMES A., B.S., M.D., Professor RMC and Senior Attending, PSLH (also Preventive Medicine)

SCHUESSLER, ROGER R., M.D., Assistant Professor, RMC and Associate Attending, PSLH

SCHWARTZ, THEODORE B., B.S., M.D., Professor, RMC and Senior Attending, PSLH

SCUPHAM, WILLIAM K., A.B., M.D., Assistant Professor, RMC and Consultant, PSLH

SHALLAT, CHARLES H., B.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

SHARON, ZEEV, M.D., Instructor, RMC and Adjunct Attending, PSLH

SHASTRI, SACHIDANANDA, B.S., M.B.B.S., M.D., Instructor, RMC and Adjunct Attending, PSLH

SHOWEL, JOHN L., B.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

SILINS, V. RAYMOND, M.D., Assistant Professor, RMC and Associate Attending, PSLH

SLAYTON, ROBERT E., B.S., M.D., Associate Professor, RMC and Senior Attending, PSLH

SMITH, GEORGE F., B.S., M.D., Professor, RMC and Senior Attending, PSLH (also Pediatrics)

SNAPP, MARSHALL, B.A., M.D., Associate, RMC and Assistant Attending, PSLH

SOKALSKI, STEVEN J., D.O., Visiting Assistant Professor, RMC and Adjunct Attending, PSLH

STAMLER, JEREMIAH, M.D., Visiting Professor, RMC and Consultant, PSLH

STEINBERG, HAROLD H., M.D., Associate Professor, RMC and Senior Attending, PSLH

STUPPY, GEORGE W., B.S., M.S., M.D., Ph.D., Emeritus Professor, RMC and Senior Attending, PSLH

The Department of Internal Medicine includes the Sections of Biostatistics and Experimental Design, Cardiology, Digestive Diseases, Endocrinology and Metabolism, Geriatrics, Clinical Hema-

tology, Infectious Diseases, Nephrol-

SUSMANO, ARMANDO, M.D., Assistant Professor, RMC and Associate Attending, PSLH

TARUN, DONALD W., B.A., B.S., M.D., Associate Professor, RMC and Senior Attending, PSLH

TARZYNSKI, MARIAN S., M.D., Assistant Professor, RMC and Associate Attending, PSLH

TAUSK, KASRIEL, M.D., Assistant Professor, RMC and Senior Attending, PSLH

TAYLOR, SAMUEL G., A.B., M.D., Professor, RMC and Senior Attending, PSLH

THOMSON, ANDREW, B.S., M.D., Associate Professor, RMC and and Senior Attending, PSLH

THOMSON, CAMERON J., B.S., M.D., Instructor, RMC and Adjunct Attending, PSLH

TRENHOLME, GORDON M., B.S., M.D., Instructor, RMC and Adjunct Attending, PSLH

TROBAUGH, FRANK E., JR., B.A., M.D., Professor, RMC and Senior Attending, PSLH

TUCKER, W. RANDOLPH, A.B., M.D., Associate Professor, RMC and Associate Attending, PSLH

TWISS, ALSTON C., B.A., M.D., Associate, RMC and Assistant Attending, PSLH

TYSZKA, THOMAS S., M.D., Instructor, RMC and Adjunct Attending, PSLH

WAKEFIELD, HOWARD, S.B., M.D., Emeritus Professor, RMC and Consultant, PSLH

WAXMAN, JORDAN, B.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Neurological Sciences)

WILLIAMS, ROGER L., B.A., M.D., Visiting Instructor, RMC and Adjunct Attending, PSLH

WINTER, PAUL L., B.S., M.D., Associate Professor, RMC and Senior Attending, PSLH

WOLF, CHARLES K., A.B., M.D., Associate Professor, RMC and Senior Attending, PSLH

WOLTER, JANET, A.B., M.D., Associate Professor, RMC and Senior Attending, PSLH

WOOD, WILLARD L., M.S., M.D., Emeritus Professor, RMC and Consultant, PSLH

ZITNIK, RALPH S., B.S., M.D., Associate Professor, RMC and Associate Attending, PSLH

ogy, Oncology, Pharmacy and Pulmonary Medicine.

The Department provides an integrated program of post-doctoral residency training in Internal Medicine which consists of a one-year intern-



Internal Medicine . . .

ship  $(R_1)$  and two subsequent years of residency  $(R_2 \text{ and } R_3)$ . An additional year of advanced training with teaching responsibility and an adjunct Medical Staff appointment is offered in a Chief Residency.

The internship year is structured to provide intensive patient contact utilizing some 300 medical beds divided into six general medical units, a Medical Intensive Care Unit, and a Surgical Intensive Care Unit. This year is divided into four two-month rotations on general medical units, which range from thirty to fortyseven patients. Each general medical unit is staffed by one or two residents, three medical interns, and several Rush Medical College students. One month each is devoted to medical and to surgical intensive care experience. A final two-month period is allotted to elective study, which may be taken in any medical or surgical subspecialty, or in Pediatrics, Psychiatry, or Neurology.

In the second year, a resident spends six months on a general medical unit, two months of Emergency Room-Triage experience and the remainder on elective services.

The third year resident spends one to three two-month rotations on a general medical unit, and the rest of the time in the subspecialty areas of his or her choice. The Department of Medicine also provides supervised outpatient medical experience in the Presbyterian-St. Luke's Hospital

Health Center Clinics, which average approximately 28,000 patients visits per year. Throughout the training period each medical house officer is assigned one half-day a week to a medical clinic. This continuing assignment provides the physician with the opportunity to provide long-term care.

With the expansion of the Rush-Presbyterian-St. Luke's Medical Center to include affiliated network hospitals, the Department has expanded its training potential to include medical unit experience in a community hospital setting. This has added depth in primary patient care experience.

The Department of Medicine schedules regular teaching sessions which include Medical Grand Rounds, a medical subspecialty lecture series, Attending and Shock Rounds, and Morbidity and Mortality Conferences. It sponsors a Biology in Medicine Seminar designed to promote in-depth study of selected clinical or research areas in medicine. The Department has recently added a bimonthly Journal Club to these sessions.

Individualization of programs is encouraged and other postgraduate programs are available. Further intensive care experiences beyond the residency are available in the clinical and research fellowships offered by the various sections.

Section of Biostatistics and Experimental Design

### PASSOVOY, MITCHELL, M.A. Director

The Section of Biostatistics and Experimental Design is a research-support facility serving the professional staff of Presbyterian-St. Luke's Hospital. Among the services provided are: (1) consultation in the design and planning of experiments, surveys, and systems of data collection,

storage and retrieval; (2) data analysis; and (3) training programs consisting of courses in (a) statistical methods in biology and medicine, and (b) experimental design.

These services are available to all hospital personnel engaged in basic biological research, clinical research, patient care, and hospital administration.

Section of Cardiology

MESSER, JOSEPH V., M.D., Director CLARK, JAMES G., M.D. COLANDREA, MICHAEL A., M.D. COLEMAN, HENRY N., M.D. HAUSER, ROBERT G., M.D.

LIEBSON, PHILIP R., M.D. MUENSTER, JOSEPH J., M.D. RIFF, DONALD P., M.D. ROSENBERG, MARVIN S., M.D. SUSMANO, ARMANDO, M.D. Cardiology . . .

TERAN, JULIO C., M.D.
TYSZKA, THOMAS S., M.D.
ZITNIK, RALPH S., M.D.
DOW, JAMES W., M.D., Consultant
GRAETTINGER, JOHN S., M.D., Consultant

SCHOENBERGER, JAMES A., M.D., Consultant SESSIONS, ROBERT W., Consultant

The Section of Cardiology provides consultation and diagnostic services for patient care, teaches medical students and postgraduates, and conducts research studies. Section personnel include the full time Section staff, practicing attending physicians, fellows, residents in medicine, fourth year medical students who rotate on an elective basis, and qualified cardiovascular nurses and technicians.

The Section includes the catheterization, cardiovascular monitoring, graphics measurement and electrocardiographic units in addition to laboratories for blood and air analyses. The Section Director also administers the Medical Intensive Care/Coronary Care Unit for the Department of Medicine. An animal laboratory is available for cardiovascular studies.

Medical residents are assigned patients whom they evaluate with the attending physicians. They interpret electrocardiograms, angiographic and graphic data with guidance from the attending staff. Emphasis is placed

on objective evaluation of cardiac physiology.

The cardiology fellows supervise hemodynamic monitoring and cardiac care in the Medical Intensive Care Unit and perform diagnostic cardiac catheterization in the Cardiac Catheterization Laboratory. They also undertake clinical and laboratory investigative studies.

The Section conducts research on the natural history of cardiac disease, quantification of ventricular function by invasive and non-invasive techniques, application of electrophysiologic principles to the study of man, and diagnosis and modification of hemodynamic abnormalities.

The Section conducts formal teaching exercises in cardiology, consultation rounds, cardiac clinic, and daily cardiac reports. Cardiology fellowships are available upon completion of two or more years of medical residency.

Section of Digestive Diseases

PAYNE, JOHN A., M.D., Acting Director

The Section of Digestive Diseases

includes three units: (1) The Liver Unit; (2) The Gastrointestinal Unit; and (3) The Nutrition Unit.

Liver Unit

PAYNE, JOHN A., M.D., Head JONES, PHILIP N., M.D. CAPPS, RICHARD B., M.D., Consultant

The study of liver disease as pursued in the Liver Unit involves consultation, care, and investigation of clinical problems as well as laboratory investigation of the liver and its diseases.

Medical residents electing experience in the unit see patients in consultation and, after appropriate training, perform liver biopsies when indicated. They may also take an active part in clinical or basic research. Formal teaching activities include hepa-

ROSENBLATE, HOWARD F., M.D., Consultant

tology rounds, liver biopsy study sessions, a liver clinic held each week in the Health Center, and consultative rounds on patients with liver disease (mainly acute hepatitis) at the Municipal Contagious Disease Hospital. There is a close working relationship with the alcoholism treatment unit of the Department of Psychiatry.

Research is primarily oriented to the study of the etiology and pathogenesis of human viral hepatitis. In addition to the study of patients, this Liver Unit . . .

involves work with marmosets (small South American primates) and a variety of *in vitro* microbiological systems. These studies are carried out in collaboration with the Department of Microbiology. Other areas of interest include the hepatic effects of drug use, drug and alcohol addiction, and the natural history, cause, and appropriate treatment of chronic ac-

tive hepatitis.

Fellowships are available in the unit for individuals who have completed two years of medical residency. Research fellowships (ideally two years) are also available and involve collaborative work between the Section and one of the basic science departments.

Gastrointestinal Unit

FRANKLIN, JAMES L., M.D., Acting

The Gastrointestinal Unit provides consultation for patients with diseases of the gastrointestinal tract, specialized diagnostic laboratory and clinical procedures, and formal and informal teaching of house staff and medical students in gastrointestinal disease.

Medical residents see all patients requiring consultation and participate in endoscopic and other diagnostic procedures. Reviews of pertinent x-rays give experience and interpretation of films concerned with the gastrointestinal tract.

Fellowships are available. Fellows share substantially in the consultation and teaching program with participation in clinical and basic research. Facilities are available for a wide range of research activities; projects of interest to individual fellows may be arranged with personnel in the unit and in other departments.

**Nutrition Unit** 

KARK, ROBERT M., Head MATTENHEIMER, HERMAN, M.D. HOWRITT, MAX K., Ph.D., Consultant

Consultant

gy and hair-analysis laboratories.

JOHNSON, ROBERT E., M.D., D.Phil.,

The Nutrition Unit is concerned with the education of medical students, house staff and staff. Postgraduate training is available through fellowships; special arrangements can be made for elective studies. The unit has laboratories for study of nutritional and related disorders, including nutritional chemistry, cell biolo-

Each day there is teaching at the bedside by the staff and consultations on problem cases. Members of the resident staff are assigned to the unit and fellowships are available at the end of the second year of residency training.

Section of Endocrinology and Metabolism SCHWARTZ, THEODORE B., M.D.,
Director
RYAN, WILL G., M.D., Associate Director
BECKER, FRANK O., M.D.,

GARLAND, JOHN T., M.D. KORNEL, LUDWIG, M.D., Ph.D. NORTHROP, GRETAJO, M.D., Ph.D.

The Section of Endrocrinology and Metabolism takes a broad yet intensive approach to clinical, investigative and laboratory aspects of the discipline. In addition to providing consultations for patients, the section maintains a clinical endrocrinology laboratory to make serum thyroxine, protein-bound iodine, insulin, growth hormone, parathyroid hormone and a variety of serum lipid determinations.

There is active research on diabetes, somatomedin, metabolic bone disease and disorders of growth, including investigations of patients housed in the Rice Metabolic Research Unit. The Steroid Unit of the section performs determinations of serum and urinary steroids of various types and conducts a research program on steroid metabolism in essential hypertension.

Endocrinology and Metabolism . . .

The teaching program is active at all levels. In addition to regularly scheduled endocrinology conferences, the section accepts two medical students during the alternate quarter, one clinical and research fellow who functions for a minimum of two years, and one or two medical residents who rotate through the section at two-month intervals.

Section of Pulmonary Medicine

# CARTON, ROBERT W., M.D., Acting Director

The Pulmonary Medicine Unit consists of the Pulmonary Function Laboratory, the Respiratory Therapy Department and the Chest Physical Therapy Department. Clinically, it is concerned with both acute and chronic diseases related to the lungs and is closely integrated with the thoracic sections of surgery, radiology and pathology. Senior clerkships, elective intern rotations, R<sub>3</sub> rotations and fellowships are available. House officers and students receive exposure to a wide variety of chest

BONBREST, HELEN C., M.D.

diseases, pulmonary physiology, interpretation of pulmonary function tests, ventilator and blood gas management, bronchial hygiene, and, where appropriate, rehabilitative techniques in chronic lung disease. There are regularly scheduled multidisciplinary conferences held both within the Medical Center and with other universities in Chicago, and teaching opportunities are available at student-therapist-house officerfellow levels.

Section of Geriatrics

### POMERANTZ, RHODA S., M.D., Director

The Section of Geriatrics has been concerned primarily with the continuing development of the Johnston R. Bowman Health Center for the Elderly, a comprehensive long term care and residential facility for the elderly being built on the Medical Center campus.

The basic orientation of the Johnston R. Bowman Health Park will be rehabilitation, restorative care and reintegration of the patient into the community. This facility will include 176 restorative care beds and 40 apartments for independent elderly people, with a strong social program and preventive medicine component. The program calls for an elective house officer rotation in geriatrics.

Clinical activities of the section include: (1) consultation on geriatric inpatients; (2) consultation on geriatric outpatients; and (3) direct care to community-based patients in conjunction with the Chicago Visiting Nurse Association and various social service agencies throughout Chicago.

During the past year, the Johnston

FOX, JACOB H., M.D.

R. Bowman Health Center was the central focus of an interdepartmental project to develop a process-oriented system of facility evaluation and patient review criteria and survey procedures for use in long term care. A project has now been developed which is built on this quality evaluation system and on the State of Illinois automatic information systems for long term care inspection, licensure, and medical review. This project has three primary objectives: to adapt and expand the quality system for use in the regulatory setting, to evaluate its usefulness as a regulatory tool, and to weigh its usefulness against the feasibility of regulatory implementation. This project, new underway, will continue for the next 18 months.

Clinical research has been directed to an attempt to identify treatable conditions in elderly patients presenting with dementia and to correlate findings on computerized axial transverse tomography (EMI scan) with clinical patient observation.







Section of Infectious Diseases LEVIN, STUART, M.D., Director JUPA, JAMES, M.D., Chief, Survelliance Unit HARRIS, ALAN A., M.D.

The Section of Infectious Diseases provides consultation for patients with infectious diseases in both the hospital and the Health Center. It is responsible for continuing surveillance of infections in all areas of the Hospital and for appropriate preventive activities.

The teaching activities of the section include daily formal and informal consultative rounds.

The developing investigative activities of the section presently concern: (1) The study of the epidemiology and control of infections acquired during hospitalization (in this study, the hospital surveillance

Section of Nephrology

LEWIS, EDMUND J., M.D., Director

Patients with hypertension, diseases of the kidneys and genitourinary tract or electrolyte and metabolic problems are studied by the staff of the Nephrology Section. The laboratories of the Unit are available for many special studies including immunological investigations and renin assays. There are active acute and chronic dialysis programs. Patients with chronic intermittent dialysis or transplantation are cared for by the staff of the Section. Metabolic aspects of hemodialysis are being investigated in the latter patients. Close associations exist with the Departments of Pathology, Surgery, Urology, Radiology and Preventive Medicine in teaching, patient care and research. The section is pursuing active research on immunological aspects of renal disease and on hypertension. In addition, cooperative studies in the

Section of Oncology

PERLIA, CHARLES P., M.D., Director HOELTGEN, THOMAS, M.D. SHOWEL, JOHN, M.D. SLAYTON, ROBERT E., M.D.

To the medical student, the intern, the resident and many older physiTRENHOLM, GORDON, M.D.
DEVETSHI, ROBERT, M.D., Consultant
LEPPER, MARK H., M.D., Consultant
WOLFE, CHARLES K., M.D., Consultant

team's data are a major resource); (2) clinical pharmacological studies of antibacterial chemotherapy: (3) studies on the evolution of antibiotic-resistant organisms; (4) active research with the Municipal Contagious Disease Hospital on hepatitis, pertussis, and viral and bacterial meningitis, as well as joint investigations of major citywide outbreaks, such as measles, diphtheria, and meningitis; (5) use of Department of Microbiology facilities for investigations in bacteriology and virology; and (6) investigation of infectious etiologies of the rheumatic diseases and aplastic anemia.

RENNIE, I. DRUMMOND, M.D., Associate Director

field of high altitude physiology have been conducted with colleagues in Peru, Nepal and Canada.

Each day there is teaching at the bedside by the staff and there are daily clinical conferences with the renal pathologists to review tissues from patients who have had renal biopsies. Each week there are regular research meetings, a Renal-Urologic-Radiologic Conference and a Nephrology Conference.

Members of the resident staff are assigned to the Section for two months at a time and research fellowships are available at the end of the second year of residency training. Usually there are from four to six research fellows in the Section who assist in out-patient and in-patient teaching and patient care. Applications for fellowships should be made to the director of the Section.

WOLTER, JANET, M.D.
TAYLOR II, SAMUEL G., M.D., Consultant

cians, the word "cancer" implies a relentless, painful and ultimately fa-

Oncology ...

tal illness. Such an attitude frequently leads to neglect and indifference to the special needs of the cancer patient. In addition to demonstrating new techniques for early diagnosis and treatment the educational program of the Section of Medical Oncology emphasizes that patients with cancer may live long, productive and useful lives if properly treated.

The Section of Oncology currently sees 600-700 new cancer patients per year, who provide an ample and varied spectrum of oncological problems. The residents and fellows will be able to follow and study these patients under the direction of members of the Section. New patients and problems are routinely discussed at biweekly Section meetings.

The Section's program stresses the importance of a combined approach to tumor therapy using the resources of the Departments of Surgery, Therapeutic Radiology, Pathology and Nuclear Medicine. Each week there is

a Tumor Conference, Lymphoma Conference, and Gynecologic Tumor Conference which are working examples of the Section's interdisciplinary approach to the problems of cancer patients. In addition, the Section is involved in many of the clinical trials sponsored by the Eastern Cooperative Oncology Group and the Gynecologic Oncology Group.

The Section offers to third and fourth year medical students an eight-week elective course in the fundamentals of tumor biology and behavior. A four-week ration stressing clinical aspects of cancer is offered for interns and residents.

One or two-year clinical fellowships are available and provide indepth training in medical oncology with rotation through Hematology, Pathology and Therapeutic Radiology. The program is designed to prepare the fellow for Board Certification in Medical Oncology. Application should be made to the Director of the Section.

Sections of Hematology

The Clinical and Laboratory Sections of Hematology are both concerned with patient care, research and training. The two sections coordinate their efforts closely in apply clinical and laboratory diagnostic exper-

tise to patient care, in teaching preand post-M.D. and Ph.D. students in both clinical and laboratory aspects of Hematology, and in conducting basic and applied research.

Section of Clinical Hematology

KNOSPE, WILLIAM H., Director ADLER, SOLOMON, M.D. FRISCHER, HENRI, M.D., Ph.D. GREGORY, STEPHANIE A., M.D.

The Section of Clinical Hematology has primary responsibility for patient care and consultation in the clinical areas of hematologic malignancies, anemias, coagulation disorders, immunohematology and non-malignant leukocyte disorders. Clinical responsibilities include primary, secondary and tertiary levels of patient care. Teaching activities include daily hospital rounds with hematology fellows, medical residents and medical students on elective rotations in Hematology. Teaching conferences include a weekly patient-oriented clinical conMcKENNA, RAJALAXMI, M.D. PIERCE, MILA I., M.D. SASSETTI, RICHARD J., M.D. SHOWEL, JOHN, M.D.

ference, a weekly seminar on fundamental clinical and basic science topics in hematology, a bone marrow morphology conference, and multidisciplinary Lymphoma and Tumor Conferences. The teaching of hematology to Phase II undergraduate medical students is shared with the Section of Laboratory Hematology during the organ system course in hematology presented once a year. Elective courses in advanced clinical and laboratory hematology are offered to Phase III medical students. The training of fellows in clinical and laboratory aspects | 47



Clinical Hematology . . .

of academic hematology is conducted collaboratively with the Section of Laboratory Hematology under a training grant from the National Institutes of Health. Programs are being developed to extend clinical consultative activities and teaching activities into the Rush network of community hospitals through periodic visits, teaching conferences and residency training activities in general internal medicine,

Section of Laboratory Hematology TROBAUGH, JR., FRANK E., M.D., The Elodia Kehm Director of Hematology BACUS, JAMES W., Ph.D. COLE, EDMUND R., Ph.D. FRISCHER, HENRI, M.D., Ph.D. McKENNA, RAJALAXMI, M.D. SASSETTI, RICHARD J., M.D.

The Section of Laboratory Hematology provides the necessary laboratory information to establish diagnoses and provide quantitation of hematologic measurements for all Medical Center patients. Included in this section is the Blood Bank, which provides full service blood banking including provision of various component therapies and frozen blood. The Clinical Hematology Laboratory is highly automated and includes a dedicated computer to assist in expediting the reporting of results. Residents in Medicine and Pathology as well as post-doctoral students in Biomedical Engineering pursue their training in these laboratories.

medical Engineering pursue their training in these laboratories.

Diagnostic studies regularly performed in addition to standard procedures for counting and identifying blood cells include the determination of red blood cell mass and total blood volume, red blood cell survival time, blood loss in feces or in menstrual flow, iron kinetics, characterization of abnormal proteins and quantitation of erythrocyte enzymes. A multitude of coagulation screening tests, individual coagulation factor assays, fibrinolytic tests and platelet function studies are performed daily

In cooperation with the Southeastern Cancer Study Group, an association of 20 university hospitals concerned with the development of new and more effective methods for the chemotherapeutic management of malignant disease states research is being conducted on: (1) Factors which regulate the numbers and differentiation of normal hematopoietic stem cells; (2) the kinetics of hema-

and allow an accurate characteriza-

tion of most bleeding disorders.

topoietic stem cells in RFM mice with myeloid leukemia; (3) saponin-induced myelofibrosis in rabbits; (4) hematopoietic stem cells in SL/SL<sub>d</sub> mice; (5) hematopoietic stem cells in the spleens, marrows and blood of mice treated with <sup>89</sup>Sr: (6) hematopoietic stem cells and colony stimulating factor in saponin-treated mice; (7) chromosome changes in hematopoietic malignancies; and (8) the therapeutic effectiveness of new chemotherapeutic agents in malignant diseases of the hematopietic system.

The Sections are also conducting: (9) <sup>52</sup>Fe studies of radiation-induced marrow aplasia in humans; (10) 52 Fe studies of bone marrow distribution in patients with hematopoietic disorders; (11) the study of automated acquisition of microscopic images in blood cell identification. [Specific areas of research concerned with automating the visual inspection processes in the Hematology Laboratories include: (a) New ways of processing blood in monolayer films on glass slides; (b) quantitation of human observer error in image classification; (c) methods of scene segmentation and description; (d) mathematical techniques of pattern recognition and classification; and quantitating of erythrocyte morphology.] (12) Studies of the biochemistry and physiology of fibrinolytic activators; (13) Studies of biochemistry and physiology of abnormal serum proteins associated with Vitamin K deficiency; (14) Studies of 125 I fibrinogen as a diagnostic agent to study the incidence of post-operative phlebothromboses in the legs;

Section of Laboratory Hematology . . .

(15) Study of the defective hemostasis of open heart surgery; (16) Studies of the genetics and biochemistry of erythrocytes.

Applicants interested in fellowships should apply directly to Dr. Trobaugh or Dr. Knospe.

# Department of Neurological Sciences

COHEN, MAYNARD M., M.D., Ph.D., The Jean Schweppe Armour Chairman of Neurology

AVERY, LOREN W., B.A., M.D., Emeritus Professor, RMC and Consultant, PSLH (also Psychiatry)

BAILEY, ORVILLE T., B.A., M.D., Visiting Professor, RMC and Consultant, PSLH

COHEN, MAYNARD M., B.A., M.D., Ph.D., Professor, RMC and Senior Attending, PSLH

DAVIS, FLOYD A., B.S., M.D., Associate Professor, RMC and Senior Attending, PSLH (also Biomedical Engineering)

FOX, JACOB H., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

GARVIN, JOHN S., B.A., M.D., Visiting Professor, RMC and Senior Attending, PSLH (also Psychiatry)

GROSSMAN, HERBERT J., B.S., M.D., Professor, RMC and Senior Attending, PSLH (also Pediatrics)

HARRISON, WILLIAM H., B.S., M.S., Ph.D., Professor, RMC (also Biochemistry)

HARTMANN, FRANCIS J., A.B., Ph.D., Professor, RMC and Senior Scientist, PSI H

HERBA, EDWARD J., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

The Department of Neurological Sciences is responsible for inpatient and outpatient neurological services, offering both consultation and direct patient care. Training in neurology and the related neurosciences is provided at the pre and post-doctoral levels for undergraduates and house staff members.

The Neurology Residency Training Program is fully accredited. Three residents are appointed to the Department of Neurological Sciences each year. All residents have an opportunity to learn the fundamentals of clinical neurology in outpatient clinics and inpatient and consultation services. They have an opportunity to learn various special neurologic procedures, including spinal and cisternal puncture, neuro-ophthalmologic and neuro-otologic studies, electroencephalography, electromyogra-

HUCKMAN, MICHAEL S., B.A., M.D., Associate Professor, RMC and Associate Attending, PSLH (also Diagnostic Radiology)

ILAHI, MUHAMMED M., M.B.B.S., Instructor, RMC and Assistant Attending, PSLH

MANDLIK, KUSUM P., Ph.D., Assistant Professor, RMC

McKENDALL, ROBERT R., B.A., M.D., Instructor, RMC and Assistant Attending, PSLH

MICHAEL, JOEL, B.S., M.S.C., Ph.D., Associate Professor, RMC (also Biomedical Engineering and Physiology)

MORRELL, FRANK, M.D., Professor, RMC and Senior Attending, PSLH

PAGE-EL, EDWARD, B.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Pediatrics)

SHENKER, DAVID M., A.B., M.D., Instructor, RMC and Assistant Attending, PSLH

WAXMAN, JORDAN, B.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Internal Medicine)

WECHSLER, MELODY M., M.D., Instructor, RMC and Assistant Attending, PSLH

WHISLER, WALTER, M.D., Ph.D., Professor, RMC and Senior Attending, PSLH (also Neurological Surgery)

phy and pneumoencephalography, arteriography, and myelography.

The first year of the residency program is devoted to clinical services plus a rotation in electroencephalography. The second year consists of a 6 month full-time rotation in neuropathology and 6 months on the clinical inpatient services. The final year includes separate rotations in neuropediatrics and neuroradiology and a 6-month elective period that can be devoted to laboratory or clinical research, or to more specialized clinical training such as neuro-ophthalmology.

Teaching exercises include weekly neurologic grand rounds and neuro-pathology conferences. Conferences and seminars are held in neuroradiology, neurochemistry, neurophysiology, neuroanatomy and interpretatio of computerized tomographic scans.

# Department of Nuclear Medicine

FORDHAM, ERNEST W., M.D., Chairman ALI, AMJAD, M.B.B.S., Instructor, RMC

and Adjunct Attending, PSLH
FORDHAM, ERNEST W., B.S., M.D.,
Professor, RMC and Senior Attending,
PSLH (also Diagnostic Radiology)

RAMACHANDRAN, PANOLIL C., M.B.B.S., Instructor, RMC and Adjunct Attending, PSLH

Nuclear Medicine occupies a new 8,500 square foot facility with a large modern radiopharmacy and gas laboratory. Equipment includes high speed dual probe scanners, tomographic scanning, scintillation cameras with rapid sequence capabilities for dynamic studies, automatic liquid scintillation and gamma counters, and other tracer and monitoring equipment. The Department operates under the supervision of the isotope committee governing the broad medical license issued to the institution by the Atomic Energy Commission.

Well over 8,000 scanning procedures are performed yearly with routine scanning of most organs with short-half-lived isotopes. A modest number of tracer studies are also performed

The department now conducts a

RAYUDU, GARIMELLA V., B.S., M.S., Ph.D., Assistant Professor, RMC and Associate Scientist, PSLH

TURNER, DAVID A., B.A., M.D.,
Assistant Professor, RMC and Assistant
Attending, PSLH (also Diagnostic
Radiology)

residency training program in nuclear medicine in addition to providing the nuclear medicine portion of training for both the diagnostic radiology and therapeutic radiology residency programs. Within the department or the institution as a whole. there are offered yearly courses in physics and basic radioactive isotope techniques, refresher courses for board certification, and radiopharmaceutical workshops for technicians, physicians and radiopharmacists. Elective clerkshop rotations are offered for medical students. The department participates in various grand rounds, conferences and daily discussions with house staff and medical students, correlating clinical problems with results of scanning procedures.

# Department of Pediatrics

CHRISTIAN, JOSEPH R., M.D., The Woman's Board Chairman of Pediatrics

BALAGTAS, ROLANDO C., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

BIGGS, ALFRED D., M.D., Emeritus Professor, RMC and Emeritus, PSLH

BROCKEN, CECILIA, B.S., M.A., Ph.D., Associate Professor, RMC and Associate Scientist, PSLH (also Psychology and Sciences of Society)

BUCHELERES, H. GUNTHER, M.D., Professor, RMC and Senior Attending, PSLH

BUTLER, CRAIG D., M.D., Emeritus Professor, RMC and Emeritus, PSLH

CHANG, TIMOTHY C., M.D., Instructor, RMC and Adjunct Attending, PSLH

CHRISTIAN, JOSEPH R., M.D., Professor, RMC and Senior Attending, PSLH COSTELLO, CHRISTINE, M.S., Instruc-

tor, RMC and Adjunct Scientist, PSLH CUNNINGHAM, DANIEL P., M.D., Associate Professor, RMC and Associate Attending, PSLH

DAMMERS, WARREN R., M.D., Lecturer, RMC and Consultant, PSLH

DAMPTZ, ROBERT E., M.D., Instructor, RMC and Assistant Attending, PSLH (also Psychiatry) DAY, DONALD W., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

DESOW, ELAINE, M.A., Instructor, RMC and Adjunct Scientist, PSLH

ELAM, HARRY P., Associate Professor, RMC and Associate Attending, PSLH (also Preventive Medicine)

ERIKSEN, RONALD G., B.S., M.D., Instructor, RMC and Assistant Attending, PSLH

GARDNER, H. REX, M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Radiology)

GEWURZ, HENRY, B.S., M.D., Professor, RMC and Senior Attending, PSLH (also Immunology)

GROSSMAN, HERBERT J., B.S., M.D., Professor, RMC and Senior Attending, PSLH (also Neurological Sciences)

GUIANG, SIXTO F., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

HARTNETT, WILLIAM T., M.D., Instructor, RMC and Assistant Attending, PSLH

HENIKOFF, LEO M., M.D., Associate Professor, RMC and Associate Attending, PSLH HENN, S. C., M.D., Emeritus Professor, RMC and Emeritus, PSLH

HYDE, JOHN S., B.S., M.D., Professor, RMC and Senior Attending, PSLH

ISENBERG, PAUL D., M.D., Instructor, RMC and Adjunct Attending, PSLH

JOHN, PUTHENPURAKAL, M.D., Instructor, RMC and Adjunct Attending, PSLH

JOHNSON, FRANK R., S.B., M.D. Associate Professor, RMC and Senior Attending, PSLH (also General Surgery)

JONES, CLAY H., JR., B.A., M.D. Associate Professor, RMC and Senior Attending, PSLH (also Preventive Medicine)

JUNG, EDUARD, M.D., Assistant Professor, RMC and Assistant Attending, PSLH

KALIANA, MUTHUKUMARAN S., M.D., Instructor, RMC and Adjunct Attending, PSLH

KALLICK, CHARLES, B.S., M.D., Associate Professor, RMC and Associate Attending, PSLH (also Preventive Medicine)

KEITH, L. EUGENE, B.S., M.D., Associate Professor, RMC and Associate Attending, PSLH

KILEY, R. JAMES, B.S., M.D., Assistant Professor, RMC and Associate Attending, PSLH

KINTANAR, FELISMENO G., M.D., Instructor, RMC and Adjunct Attending, PSLH

KURUP, RAMACHANDRA, M.B.B.S., Instructor, RMC and Adjunct Attending, PSLH

LIMP, CHARLES, M.D., Instructor, RMC MATTHEWS, JANICE, M.D., Instructor, RMC and Adjunct Attending, PSLH

MEDENIS, RUTE, M.D., Associate Professor, RMC and Associate Attending, PSLH (also Internal Medicine)

MEIER, WERNER A., M.D., Associate Professor, RMC and Assistant Attending, PSLH

MENDOZA, MARILYN, M.S., Instructor, RMC and Adjunct Scientist, PSLH

MILLER, HOWARD R., B.A., M.D., Assistant Professor, RMC, Consultant and Emeritus, PSLH

MILLER, ROBERT A., M.D., Visiting Professor, RMC and Consultant, PSLH

MORALES, SILVO D., M.D., Assistant Professor, RMC and Senior Attending, PSLH

MUENSTER, JOSEPH J., M.D., Associate Professor, RMC and Senior Attending, PSLH (also Internal Medicine)

NARAYAN, M. S. LAXI, M.D., Instructor, RMC and Adjunct Attending, PSLH

The Department of Pediatrics inpatient unit includes beds for newborns, infants, children, and adoles-

NELSON, KAREN B., A.B., M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Preventive Medicine)

PACHMAN, DANIEL J., M.D., Professor RMC and Consultant, PSLH

PAGE-EL, EDWARD, B.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Neurological Sciences)

PAUL, SHASHI, M.D., Instructor, RMC and Adjunct Attending, PSLH

PEREZ, ADOLFO A., B.S., M.D., Assistant Professor, RMC and Associate Attending, PSLH

PIERCE, MILA I., M.D., Distinguished Professor, RMC and Associate Attending, PSLH

PROTEAU, ROSEANNE V., B.A., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

PUC, FRANK C., B.S., M.D., Assistant Professor, RMC and Associate Attending, PSLH

RAO, U. SRIPATHY, M.D., Instructor, RMC and Adjunct Attending, PSLH

REDDI, K. T., M.B.B.S., Assistant Professor, RMC and Assistant Attending, PSLH ROSENTHAL, IRA M., A.B., M.D., Pro-

fessor, RMC and Consultant, PSLH RYAN, MARY LYNN, M.D., Instructor,

RYAN, MARY LYNN, M.D., Instructor, RMC and Adjunct Attending, PSLH SACHDEVA, SHANTA, Ph.D., Lecturer

and Complemental Faculty, RMC and Assistant Scientist, PSLH

SANFORD, HEYWORTH N., M.D., Emeritus Professor, RMC and Emeritus, PSLH

SANTUCCI, BARBARA, B.A., M.D., Assistant Professor, RMC and Associate Attending, PSLH

SCHWARTZ, DONALD P., B.A., M.D., Assistant Professor, RMC and Adjunct Attending, PSLH

SHAW, NOEL G., M.D., Emeritus Professor, RMC and Emeritus, PSLH

SHMIGELSKY, IRENE, B.A., M.D., Assistant Professor, RMC and Associate Attending, PSLH

SMITH, GEORGE F., M.D., Professor, RMC and Senior Attending, PSLH

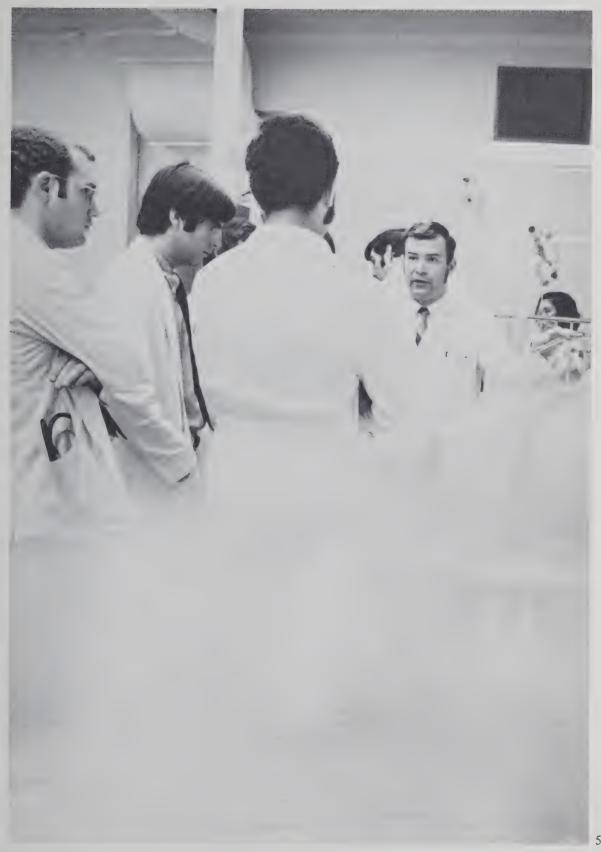
STEPAN, C. Edward, M.D., Associate
Professor, RMC and Consultant, PSLH
STINE ROBERT H. B.S. M.D. Assistant

STINE, ROBERT H., B.S., M.D., Assistant Professor, RMC and Adjunct Attending, PSLH

STROKOSCH, GARY R., B.A., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

SWARTS, CHARLES L., M.D., Associate Professor, RMC and Associate Attending, PSLH

cents. The patient areas are divided into a Section of Neonatology, with separate nurseries for well babies.



Pediatrics . . .

and a Perinatal Center, including the neonatal intensive care and the neonatal intermediate care units; pediatric surgical (15 beds), intensive care (6 beds) and intermediate care (6 beds) units; a general pediatric unit of 31 beds for infants and children 12 years of age and under; and 22 beds for adolescents and young adults 13 to 21 years of age. Inpatient admissions are approximately 6,000 per year, with equal distribution of medical and surgical patients. Approximately one-half of the patient admissions are private.

The staff includes 45 full time, 5 part time and 56 volunteer members. The teaching program correlates medical student, intern and resident training. This type of training program results in an ever-increasing opportunity for the house staff to participate in academic teaching and research. Daily experience is directed primarily toward the understanding of basic principles and practices of pediatrics.

First year training consists of inpatient and outpatient assignments, with rotation through neonatal, general pediatric medical, pediatric surgical and adolescent and young adult services.

Outpatient experience includes appropriate services integrated with the inpatient program. Specialty experience is available in general pediatrics, in pediatric medical and surgical specialty clinics, and on an inpatient and outpatient basis in growth and development, preventive pediatrics, allergy, cardiology, endocrinology and metabolism, genetics, hematology, psychiatry, psychology, neurology, radiology, poison control, accident prevention and birth defects.

The medical pediatric outpatient service includes daily general pediatric clinics and adolescent, allergy, cardiology, child development, dermatology, genetics, renal, neonatal pathology and well baby clinics. The outpatient services also include the surgical specialty clinics in chest, dental, E.N.T., gynecology, neurosurgery, ophthalmology, orthopedics.

plastic surgery, general surgery, tumor, and urology specialties. The number of outpatient visits per year approximate 60,000 in the Section of Ambulatory Pediatric Services. The Emergency Room is staffed by residents with continuous consultation service by the full time and volunteer staff.

The neonatal nurseries are under the direction of the Department of Pediatrics. Approximately 300 infants are delivered each month. Under close supervision the trainee becomes acquainted with the newborn infant during and after discharge from the hospital.

The trainee receives inpatient responsibility and teaching experience under the direct supervision of a senior resident and volunteer or full time staff members. Attending pediatricians act as supervisors and consultants to the pediatric residents.

The PL 2 (second year trainee) rotates through outpatient specialty services, inpatient services and contagious diseases with supervisory responsibility for PL 1 trainees and junior and senior medical students. The PL 3 (third year trainee) rotates through allergy/clinical immunology. cardiology, developmental pediatrics and elective service. Cardio-respiratory diseases, including rheumatic fever, congenital heart defects, and collagen diseases, are presented in the outpatient and inpatient services, using the facilities of the cardio-respiratory laboratory and chest disease service. The resident receives experience under direct supervision of a qualified pediatrician, internist, and surgeon, with full time and volunteer staff members as consultants. Student teaching and outpatient responsibility are increased during advanced training. Students on the outpatient and inpatient services are assigned to the residents for teaching purposes during specific periods of the week.

A graduate program in pediatric research and teaching is offered as an elective only to selected residents who have completed a two or three year program. Not all residents are expected to complete three or more

Pediatrics . . .

Section of Adolescent and Young Adult Medicine

Section of Ambulatory **Pediatrics** 

years of training. The graduate program consists of assignments in

specialty services such as allergy/clinical immunology, cardiology, hema-

### STROKOSCH, GARY R., M.D., Director

Adolescent and Young Adult Medicine is rapidly becoming an important part of the practice of medicine. The Section's inpatient unit of 22 beds and its outpatient unit are both geographically separated from the Pediatric areas. Patients 13 to 21 are cared for in these areas. The house staff consists of interns and residents who are assigned as part of their pediatric rotation. The Section is administered jointly by the Departments of Pediatrics and Medicine, Medical, surgical and various sub-specialty patients are admitted to the unit and are the immediate responsibility of the assigned house staff. While surgical patients are cared for by the various surgical services, the assigned medical house staff are expected to be familiar with the problems and complications of the surgical patients and deal with them when necessary.

The aim of this section is to study and treat illnesses occurring in this

### ELAM, HARRY P., M.D., Director

The diversified program in Ambulatory and Community Pediatrics is designed to prepare the fellow for a career either in pediatric practice or in academic ambulatory pediatrics. Clinics in the hospital outpatient department offer supervised experience in screening and crisis-care, comprehensive care, continuity care, preventive pediatrics, adolescent medicine, and subspecialties. Beds are available for admission of patients on a non-quota basis. Although fellows do not have inpatient obligations, they have the opportunity to follow their own patients during hospitalization. The availability of beds for admission and the availability of visiting nurses for follow-up help assure continuity of care.

The program affords an opportu-

tology, oncology, psychiatry, infectious disease, genetics, neonatology, adolescence, child development, and ambulatory pediatrics.

age group, recognizing that this is a time of great physiological and psychological stress. Special effort is made to keep hospitalization from becoming in any way a traumatic experience. Consultants in surgery, psychiatry, internal medicine and psychology are readily available.

The outpatient clinic serves as the home medical clinic, and although consultations are readily available, every effort is made to keep the patient in the home clinic rather than to have care administered only by a specialty clinic. The clinic is physically adjacent to the adolescent prenatal and family planning clinic where a close working relationship is maintained with the Department of Obstetrics and Gynecology. Drug abuse problems are dealt with by staff members of the Section.

Seminars are held periodically to discuss various adolescent problems of both organic and non-organic etiology.

nity to work with Medical Center multidisciplinary groups dealing with children with learning disorders, developmental problems and multiple handicaps. Experience is gained in the effective use of resources such as nutritionists, psychologists, public health nurses, social workers and community agencies.

Fellows participate in pediatric grand rounds and multidisciplinary conferences. Arrangements are made with staff pediatricians for the fellow to gain experience in office pediatrics. The flexibility of the program allows the interested fellow to emphasize certain aspects of ambulatory care, e.g., developmental pediatrics.

Fellows assume teaching responsibility for four to six junior medical students each quarter. In addition, each fellow undertakes an investigative project of his own choosing.







Ambulatory Pediatrics . . .

Special assignments include: formal outpatient case conferences, and presentations to neurologists, cardiologists, infectious disease consultants, hepatologists, and other visiting or regular consultant services. The Section is involved in research into new ways to provide ambulatory care,

including exploration and unifying private and clinic practice to provide one standard of medical care for all children.

A one or two-year-program is available to applicants who have completed two years of approved pediatric internship-residency training

Section of Newborn Medicine

### MEIER, WERNER A., M.D., Director

The newborn service has 3,000 babies a year admitted from mothers delivered at Rush-Presbyterian-St. Luke's Hospital. Approximately one third are private patients; the balance are admitted primarily through the Health Center and Mile Square Health Center.

Over three hundred infants a year are admitted into the special care nursery, which includes eight intensive care isolette units and 12 intermediate care units. A comprehensive perinatal approach is emphasized. with close cooperation of the obstetric service, including a weekly obstetric-pediatric conference in which pertinent cases (mother and newborn) are discussed by both services. There is a monthly Perinatal Mortality conference. Rush-Presbyterian-St. Luke's Medical Center has been selected by the Board of Health of the State of Illinois as one of the Regional Perinatal Centers for the City of Chicago and nearby counties. This will lead to active working and teaching activities in the community hospitals, and to a very specialized system for transporting sick infants into our Medical Center.

Pediatric first and second year trainees are assigned to the newborn service for three months rotation: the first year trainee has direct responsibility for patient care under the supervision of the second year trainee and the newborn service staff. Trainees from other services are assigned to the newborn service. Third year medical students spend part of their pediatric clerkship in the newborn service. Also fourth year medical students may elect a newborn service rotation with patient care responsibility under supervision of the nursery staff.

Two clinical fellows in newborn medicine supervise patient care, assist with teaching and service activities, and participate in research and other special projects. Work rounds and attending rounds are held daily.

The special nursery clinic provides follow-up continuity of care for those babies with continuing problems related to the perinatal period after they have been discharged from the nursery. Well child care is provided in clinics oriented toward normal growth and development and prevention of disease.

Section of Allergy and Clinical Immunology

### HYDE, JOHN S., M.D., Director

Allergy/clinical immunology training includes both inpatient and outpatient experience. The first year resident spends approximately 80 per cent of his time with patients in the pediatric and adult clinics. Teaching consists of informal ward rounds, journal clubs, immunology lectures, basic science seminars and patient presentation conferences. By prior

individual arrangement the resident spends two or three months each, on a part time basis, in at least two of the following outpatient clinics or laboratories; dermatology, otolaryngology, child psychiatry, pulmonary medicine, microbiology and research immunology.

Basic and clinical immunology studies include one quarter of formal lectures and laboratory work in the graduate departments of microbiolAllergy and Clinical Immunology . . .

ogy and/or immunology. Application of the tools of clinical immunology include total circulating eosinophils and nasal smears for eosinophils, standard quantitative immunoglobulin determinations, immuno-electrophoresis, passive transfer tests, migration-inhibition tests, blast transformation, histamine release from leukocytes, and newer immunologic techniques include thymus cell and complement function.

The resident is expected to see as many hospitalized patients as possible with hypersensitivity diseases and attend the outpatient services and the Emergency Room. In all these consultations are made by the allergy/clinical immunology trainee in the presence of a certified allergist. Responsibility for the care of allergyimmunology patients is usually assumed by the resident after six months of supervised experience. Upon assuming consultation responsibilities, the resident and his work are subject to review by a member of the allergy/clinical immunology staff. The outpatient facility consists of three children's and two adult clinics at the Presbyterian-St. Luke's Hospital and one children's and one adult clinic at University of Illinois Hospital.

During their residencies in the section, physicians are involved in various research projects. Usually the first year resident works on an investigative problem already in progress. The second year resident is expected to devote at least half of his time to a specific research study, sometimes purely laboratory and sometimes partly clinical. Programs for M.S. and Ph.D. degrees can be arranged. This special arrangement was not established to discourage candidates who wish to become practicing consultants in the subspecialty but to broaden the spectrum in the program.

An ancillary program in adult allergy is available through the co-operation of the allergy unit of the Department of Medicine at the Abraham Lincoln School of Medicine. This program consists of three hours per week for one year at the outpatient clinic of the University of Illinois Hospital, plus one hour per week at the West Side Veterans Administration Hospital.

Section of Pediatric Cardiology

# BUCHELERES, H. GUNTHER, M.D., Director

The section staff consists of two full-time pediatric cardiologists. The program is approved for two years of training required for certification in this sub-specialty. Residents in their general pediatric training are assigned for a three month rotation. The section provides an elective clerkship for medical students.

Approximately 1,200 outpatient examinations are conducted in several clinics and 300 to 350 patients are admitted to the inpatient service per year. Approximately 120 children undergo cardiovascular surgical procedures during the course of the year. Surgery is preceded by a conference with the surgical staff. The members of the Section of Pediatric Cardiology participate in intra and post-operative patient care. Most children return directly from the

operating room to the Pediatric Intensive Care Unit.

Training is given in all aspects of clinical and laboratory diagnosis of heart disease in children. Clinical conferences, ward rounds and responsibility as a consultant to the pediatric house staff develop the trainees' experience in bedside diagnosis and therapy. Laboratory techniques are acquired in the Cardio-Respiratory Laboratory, which is equipped with excellent facilities for diagnostic and investigative endeavor. Members of the laboratory staff share the teaching of cardiopulmonary physiology. Annually between 170 and 180 cardiac catheterization studies are performed in infants and children.

Detailed analysis of the pathologic anatomy of cardiovascular disease is pursued in collaboration with the Congenital Heart Disease Research Pediatric Cardiology . . .

and Training Center located near the Medical Center. Our trainees in Pediatric Cardiology enhance their knowledge of embryology and cardiopulmonary pathology during assignments of one month per year to the

Center and its director conducts regular pathology conferences at Presbyterian-St. Luke's Hospital. Over 90 per cent of the 30 to 35 children with heart disease who died annually undergo postmortem examination.

Birth Defects Special Treatment Center PROTEAU, ROSEANNE, M.D., Pediatrician Coordinator

The program in the Birth Defects Special Treatment Center offers complete, comprehensive and coordinated multidisciplinary care for children with birth defects. Attention is given not only to the medical problems, but also to the complex economic, psychological, and social problems which confront the young patient and his family. The philosophy of the Center is complete care for the child with any congenital defect, preserving the realization that he is a totally developing individual.

The Center is directed by a fulltime pediatrician and nurse-coordinator. The team includes physicians skilled in various medical and surgical BAAR, KATHERINE, R.N., Nurse Coordinator

specialties, as well as personnel qualified in providing physical and occupational therapy, educational and vocational planning and all aspects of habilitation and rehabilitation. Facilities, services, and devices are available as necessary for both the inpatient and the outpatient. Continual evaluation and provisions for long term follow-up are provided, so that there is a continuity of patient care in all aspects.

The pediatrician coordinates the planning and implementation of diagnostic testing and evaluation of each patient, and directs and coordinates the functions of the Center's staff in the management of each patient.

Developmental Pediatrics

DAY, DONALD W., M.D., Program Director

The C. Edward Stepan Child Development Center established in the Department of Pediatrics at Rush-Presbyterian-St. Luke's Medical Center provides facilities and services for children with learning disabilities, behavior problems and abnormal or delayed development of motor, social or language skills. Patients are accepted on a referral basis from physicians, schools, hospitals, and other institutions which provide care for children.

Patients from birth to 18 years of age are eligible but a range to 12 years is preferred. Patients with the following characteristics are also appropriate for referral: (1) Children with neurological defects such as impaired vision or hearing, brain damage, seizures, cerebral palsy, etc; (2) Children suspected to be mentally handicapped but not definitely

classifed; (3) Underachievers in school settings who appear to be neurologically and mentally normal; (4) Children suspected of having moderate to severe emotional disturbances (most of these will be referred after evaluation to child psychology or psychiatry; and (5) Children who have physical or intellectual-developmental handicaps because of a genetic disease.

The Center offers a comprehensive program for diagnostic and therapeutic management for approximately 300 new patients and 1,000 patients annually.

The Center's staff includes a pediatrician as program director, a consultant pediatrician, two associate pediatricians, and consultant clinical psychologists. Consultants to the Center's staff are available in pediatric neurology, electroencephalography, neurosurgery, orthopedic surgery, pediatric allergy, ophthalmology and otolaryngology. Ancil-

Developmental Pediatrics . . .

lary specialists are available in speech and hearing (diagnosis and therapy), special education, medical social service, nursing and occupational therapy and physical therapy.

Medical students, interns and residents are assigned to the Center as part of the pediatric service rotation. The medical student and pediatric intern receive formal instruction in normal and abnormal growth and

development and participate in case discussions under direct supervision of the staff. The resident assumes responsibility, with consultative supervision, for patient evaluation, diagnosis and treatment. The consultative supervision is provided in the regularly scheduled staffing conferences during which cases are presented.

Section of Community Pediatrics Mile Square Health Center

### PUC, FRANK, M.D., M.P.H., Director

The development of the neighborhood health center represents a relatively new approach to comprehensive family-oriented medical care for poverty areas. The Mile Square Health Center serves a community of 23,000, half of which are in the pediatric age group. The philosophy of the center is continuous, coordinated, comprehensive care.

All general pediatric care is rendered in the Center. Routine laboratory and radiological services are available on the premises. Patients requiring inpatient or outpatient consultation or special diagnostic services are referred to Presbyterian-St. Luke's Hospital.

A program for the training of Nurse Associates has been functioning since inception of the Center in 1967. Nurse Associates function in the preventive aspect of the pediatric care and in "pediatric screening." Medical students are offered an opportunity to get an overview of community pediatrics at Mile Square.

All pediatricians working 50 percent or more of their time at the Center are on the staff at Presbyterian-St. Luke's Hospital and have a faculty appointment at Rush Medical School.

Pediatric Infectious Disease Program

### REDDI, K.T., M.D., Director

The Pediatric Infectious Disease Program was established to develop programs in infectious diseases within the pediatric setting. Clinical research is related to the study of incidence and types of infectious diseases within the institution. Basic research is involved in the study of the possible etiology of collagen disease, using both Presbyterian-St. Luke's Hospital and the Municipal Contagious

Disease Hospital. Research, daily teaching conferences and regularly scheduled teaching rounds are conducted by the Director and the Section Chief of Infectious Diseases of the Department of Medicine. A resident is regularly assigned to the Municipal Contagious Disease Hospital for three months of special training. A one year fellowship training program in pediatric infectious diseases is currently offered.

Pediatric Psychology Program

### BROCKEN, CEL, Ph.D., Director

The Pediatric Psychology Program, an integral part of the Department of Pediatrics, was established to develop psychological services and programs within the pediatric milieu. It strives to facilitate maximum collaboration between the medical and behavioral sciences in the comprehensive care of the pediatric patient. Psychological services include developmental evaluations, diagnostic testing, and individual, family and group psychoeducational disorders. Every effort is made to involve the pediatrician, the family, and the school at every level of diagnosis and psychotherapy.





Pediatric Psychology Program . . . In addition to the more traditional goal of diagnostic and therapeutic services, programs are being developed for the normal child and adolescent under the stress of illness and hospitalization. The main objective of these programs is to maximize the total therapeutic aspects of the hospital milieu. There programs are designed to help the patient cope with the psychological demands of illness and hospitalization.

The educational role of the pediatric psychologist at the Medical Cen-

ter includes developing curriculum and teaching in a number of core and elective courses in Rush Medical College; participating in the Developmental Pediatrics Program for pediatric house staff, which provides weekly conferences for pediatricians at all training levels, and a specialty quarter for advanced trainees; and participating in staff development and continuing education programs for pediatric nurses, pediatric nurse associates and pediatric volunteers.

Section of Genetics and Human Development

### SMITH, GEORGE F., M.D., Director

The Section of Genetics and Human Development performs various genetic studies for inpatients and outpatients—both from Presbyterian-St. Luke's Hospital and from numerous other hospitals in the Chicago area. Students, residents and graduate students or professionals who choose to spend time in the Genetics Section learn about the various tests, why they are done and the procedures used.

The research programs carried on in the laboratories of this Section are varied and are conducted by a number of people with a variety of backgrounds, training and experience. Those who choose to spend time in the Section may be assigned a project connected with the research going on.

Cooperative research is carried on with several other universities and with other departments, especially Psychology and Immunology. Students, residents and others may also be assigned to work in these areas, depending on their individual interests and training.

The Genetics Section also wel-

comes graduate students or professionals on sabbatical leave who wish to spend several months to a year working on a particular project in our laboratories.

Pediatric residents are welcome to the laboratory for practical experience on how to work on a research problem and how to write a scientific paper. The resident is usually assigned a short-term clinical probelm. The resident will have an opportunity to examine babies and children with genetic abnormalities and will see first-hand how the clinical and laboratory diagnoses are made on these patients. The resident will accompany the pediatrician-geneticist when he conducts inpatient consultations and will attend genetic lectures and study the literature to reinforce clinically gained knowledge about genetic abnormalities.

Fourth year medical students (one at a time) may spend 6-12 weeks on a senior elective in Genetics. The student is assigned to a short-term clinical or laboratory problem and is encouraged to use the scientific literature and to produce a scientific paper.

Department of Preventive Medicine

SCHOENBERGER, JAMES A., B.S., M.D., Chairman

BONBREST, HELEN C., A.B., M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Internal Medicine)

ECKENFELS, EDWARD, M.A., Assistant Professor, RMC

ELAM, HARRY P., B.S., M.D., Associate Professor, RMC and Associate Attending, PSLH (also Pediatrics) EXUM, DOLORES B., B.A., M.S.W., Instructor, RMC (also Psychology and Social Sciences)

HALL, YOLANDA, M.S., Assistant Professor, RMC

HUDSON, EDSEL K., B.S., M.D., Associate Professor, RMC and Senior Attending, PSLH (also Internal Medicine)

JONES, CLAY H., JR., B.A., M.D., Assistant Professor, RMC and Senior Attending, PSLH (also Pediatrics)

# Department of Preventive Medicine . . .

KALLICK, CHARLES, B.S., M.D., Assistant Professor, RMC and Associate Attending, PSLH (also Pediatrics)

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LEPPER, MARK H., B.A., M.D., Professor, RMC and Senior Attending, PSLH (also Internal Medicine)

LEVIN, STUART, B.M., M.D., Associate Professor, RMC and Senior Attending, PSLH (also Internal Medicine and Microbiology)

LEVINE, CHARLOTTE C., B.A., M.D., Instructor, RMC and Assistant Attending, PSLH (also Internal Medicine)

LEVINE, MILTON D., B.A., Sc.D., M.D., Professor, RMC and Senior Attending, PSLH (also Internal Medicine)

McCREARY, PATRICIA A., A.B., M.D., Associate Professor, RMC and Associate Attending, PSLH (also Internal Medicine)

MEYER, JOHN H., M.D., Associate, RMC and Assistant Attending, PSLH (also Internal Medicine)

NELSON, KAREN B., A.B., M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Pediatrics)

NOBLE, BARBARA W., B.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Internal Medicine)

The Department of Preventive Medicine has as its goal the development of active programs of teaching, research and planning in the areas of Health Care Delivery, Preventive Practices, Ecology and Epidemiology, and Occupational and Environmental Health.

The Department of Preventive Medicine, although new in 1971, has grown from what was formerly the Section of Community Medicine of the Department of Medicine. Thus the Department already has an active program of research in medical care, and the preventive aspects and epidemiology of chronic disease. Under the direction of the Section of Community Medicine the Mile Square Health Center, a neighborhood health center serving a population of 25,000, was developed. Studies on utilization of health services, hospitalization rates and cost analysis are

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POST, JOHN, M.D., Visiting Assistant Professor, RMC and Emeritus, PSLH (also Internal Medicine)

PROTEAU, ROSEANNE V., A.B., M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Pediatrics)

REYNOLDS, ROBERT E., B.A., M.D., M.P.H., D.P.H., Professor, RMC and Senior Attending, PSLH (also Internal Medicine)

SCHEINER, DAVID L., B.A., M.D., Associate Professor, RMC and Assistant Attending, PSLH (also Internal Medicine)

SCHOENBERGER, JAMES A., B.S., M.D., Professor, RMC and Senior Attending, PSLH (also Internal Medicine)

SCHOENENBERGER, JOSEPH C., B.S., M.D., Ph.D., Assistant Professor, RMC and Assistant Scientist, PSLH (also Psychology and Social Science)

SHEKELLE, RICHARD B., Ph.D., Associate Professor, RMC

SPIES, HAROLD W., B.S., M.D., Associate Professor, RMC

STEINBERG, HAROLD H., M.D., Associate Professor, RMC and Senior Attending, PSLH (also Internal Medicine)

TURNER, IRENE R., Assistant Professor, RMC

being carried out within the Center.

The medical director of ANCHOR (a health maintenance organization), as a member of the department, plays a major role in developing new models for health care delivery. The department is actively working with the vice president for health care planning in designing an interrelated network of health maintenance organizations, including the total medical care planning for a new city.

The medical director of the Presbyterian-St. Luke's Health Center is also a member of the department and is also engaged in program planning and evaluation of new forms of delivery of primary health care. The department currently has a grant in conjunction with the Division of Nursing for the training of medical nurse associates, which includes studies on role function and evaluation of the health care team. A prac-



### Preventive Medicine . . .

tical application of this new role for nurses is going on in the Hypertension Clinic, where uncomplicated hypertensives are managed by Medical Nurse Associates under the supervision of physicians.

There is ongoing research in the department in preventive practices and chronic disease epidemiology. A clinical unit of the National Cooperative Study of Coronary Disease, a long term study of the effect of drugs on mortality of post-myocardial infarct patients, is based in the department and is now completing its work. In addition, investigation of hypertension in urban, suburban and rural communities including evaluation of case-finding methods and long term management of hypertension-has been carried out.

Two new studies were instituted in 1974. One, the Multiple Risk Factor Intervention Trial (MRFIT) of the NHLI, is a cooperative study being carried out in 20 centers throughout the United States to test the hypothesis that simultaneous intervention against the three major risk factors will successfully prevent clinical coronary heart disease. The Rush MRFIT Center is located off cam- and/or develop his own research propus in Oak Brook, Illinois. The other study is the Aspirin Myocardial Infraction Study (AMIS) of the NHLI,

a nationwide cooperative study of 30 centers to test the efficacy of aspirin in the prevention of recurrent myocardial infarction.

Two members of this department have been active as consultants to the Milton Olive III Memorial Corporation, a community organization which operated a health research program in Holmes County, Mississippi under a grant from the National Center for Health Services Research and Development, The Holmes County Health Project dealt with a broad spectrum of rural health problems as well as a study of migration. The consultants from this department have been most active in the development of a population census and in coordinating the many facets of the program. In addition they have taken primary responsibility for instituting a community-wide program for the control of hypertension.

Elective experience is available in the department for any resident interest in furthering his training in health care planning, medical care research and epidemiology. He may elect to participate in any of the studies or programs described above gram under supervision.

## Department of **Psychiatry**

- FAWCETT, JAN A., M.D., The Stanley G. Harris, Sr., Chairman of Psychiatry
- ALEXANDER, HARLAN G., M.D., Instructor, RMC and Assistant Attending, PSLH
- ARMSTRONG, CLARESA, M.D., Assistant Professor, RMC and Senior Attending, PSLH
- AVERY, LOREN W., M.D., Emeritus Professor, RMC and Senior Attending,
- BARRAL, MYRLINDA, M.D., Assistant, RMC and Adjunct Attending, PSLH
- BENEZRA, E. ELLIOT, M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- BERENDI, SANDOR, M.D., Assistant, RMC and Adjunct Attending, PSLH
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- BOLIN, RICHARD, M.D., Assistant Professor, RMC and Senior Attending, **PSLH**

- BUCK, DAVID W., M.D., Assistant Professor, RMC and Associate Attending, **PSLH**
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- CHRISTOPOULOS, ANGELOS, M.D., Assistant Professor, RMC and Assistant Attending, PSLH

Department of Psychiatry . . .

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- DAMPTZ, ROBERT E., M.D., Assistant Professor, RMC and Assistant Attending. PSLH (also Pediatrics)
- DAVIS, JUDITH M., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
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- GARVER, DAVID L., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- GARVIN, JOHN S., M.D., Professor, RMC and Senior Attending, PSLH (also Neurological Sciences)
- GERTY, FRANCIS J., M.D., Emeritus Professor, RMC and Consultant, PSLH
- GUISE, GRACIA, M.S., Associate, RMC and Assistant Scientist, PSLH (also Psychology and Social Sciences)
- GWYER, FRED V., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- HAWIMI, YOUSEF, M.D., Assistant Professor, RMC and Assistant Attending,
- HALPER, IRA S., M.D., Assistant Professor, RMC and Associate Attending, PSLH
- HANNI, JOHN W., M.D., Professor, RMC and Senior Attending, PSLH
- HOVDE, CHRISTIAN A., Ph.D., Visiting Assistant Professor, RMC and Consulting, PSLH
- JONES, FRANK D., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- KATZ, JEROME I., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
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- KOENIG, RICHARD C., M.D., Assistant Professor, RMC and Associate Attending, PSLH
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- MILLER, RAYMOND N., M.D., Assistant Professor, RMC and Associate Attending, PSLH
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- ORLOFF, MOLLIE, M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- PARK, YOUNGNAM, M.D., Assistant, RMC and Adjunct Attending, PSLH
- PEDEMONTE, LILIAN M., M.D., Assistant, RMC and Adjunct Attending, PSLH
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- PSARRAS, GEORGETTE M., Ph.D., Assistant Professor, RMC and Assistant Scientist, PSLH (also Psychology and Social Sciences)
- ROSENTHAL, MAURICE J., M.D., Assistant Professor, RMC and Associate Attending, PSLH
- SABLE, ARTHUR D., M.D., Assistant Professor, RMC and Associate Attending, PSLH
- SCHUMACK, EDWARD J., M.D., Associate, RMC and Adjunct Attending, PSLH

#### Psychiatry . . .

- SCHWARTZ, MARVIN, M.D., Assistant Professor, RMC and Associate Attending, PSLH
- SMITH, GARTH D., M.D., Assistant Professor, RMC and Associate Attending,
- SOLOMON, ALFRED P., M.D., Professor, RMC and Senior Attending, PSLH
- STEED, DAVID W., M.D., Associate Professor, RMC and Senior Attending,
- TRAKAS, DEMETRIUS A., M.D., Assistant Professor, RMC and Associate Attending, PSLH
- TURK, CHARLES E., M.D., Assistant Professor, RMC and Assistant Attending,
- URSE, VLADIMAR G., M.D., Professor, RMC and Senior Attending, PSLH

WATSON, LAURA, M.A., Instructor. RMC and Adjunct Scientist, PSLH (also Psychology and Social Sciences)

- WEINBERG, JACK, M.D., Professor, RMC and Senior Attending, PSLH
- WEST, JAMES, M.D., Assistant Professor, RMC and Assistant Attending, PSLH WOLF, MARION E., M.D., Instructor,
- RMC and Adjunct Attending, PSLH WOLFF, JOHN M.D., Professor, RMC and Consulting, PSLH (also Obstetrics
- and Gynecology) WRIGHT, DONOVAN G., M.D., Professor, RMC and Senior Attending.
- PSLH
- YANG, HAYNG-SUNG, M.D., Assistant, RMC and Adjunct Attending, PSLH

General Psychiatry Residency **Training** 

A fully accredited three year program provides the eclectic, intensive experience necessary for the practice of modern comprehensive psychiatry. Training in psychodynamic orientation is integrated with psychopharmacologic, family, and community intervention. Research and teaching opportunities are encouraged where appropriate to the resident's development.

The Marshall Field IV Center is the administrative base of the department, and houses the Adult and Child Outpatient Psychiatric Clinic, the Adult and Children's Day Hospital, the Outpatient Alcoholic Program, seminar rooms, and residents' offices. This physical contiguity exemplifies the continuity of the training program, providing access to multiple resources for clinical care and education.

A modern psychiatric unit of 67 beds is an integral part of Presbyterian-St. Luke's. It comprises an Adult General Psychiatry Inpatient Unit, an Adolescent Unit, and an Alcohol Treatment Unit, each under supervision of a clinical director responsible for the quality of patient care, education, and research.

The Consultation Service provides

a broad range of liaison experience as well as specialized elective rotations.

The resident begins his training with intensively supervised inpatient study. First year seminars focus on fundamentals of patient interviewing and evaluation, diagnosis of psychopathology and patient management, and psychotherapeutic and somatic therapy modalities. Second and third year residents are encouraged to pursue their individual talents while acquiring basic skills in outpatient diagnosis and therapy, family and marital therapy, and child and adolescent psychiatry. In these various subdisciplines, seminar work coordinates with clinical experience and individual supervisory sessions. For residents interested in formal psychoanalytic training, the Chicago Institute for Psychoanalysis is available to candidates when appropriate.

Residents who are eligible for a United States Public Health grant may receive augmented salary and dependency allowances.

Applications should be made to Melvin Prosen, M.D., Director of General Adult Psychiatry Residency Training.

Child Psychiatry Training Program

The Section of Child Psychiatry offers a fully approved two-year residency in the subspecialty of Child Psychiatry. Four qualified candidates are matriculated each year. The program consists of specialized training in the clinical consultative and administrative skills appropriate to the field of Child Psychiatry. The development of diagnostic and therapeutic Child Psychiatry
Training Program . . .

skills is not the only objective. A constant review of established ideas by the staff and trainees is encouraged, with the aim of an ongoing examination of the traditional theoretical models operant in the realm of child and adolescent development. Programs are offered in child and adolescent inpatient, outpatient, day hospital, and community psychiatry

areas. This affords flexibility over the two years for multi-disciplinary approaches as well as elective involvement for special interests such as teaching, clinical practice, research and administration.

Applications should be made to Mercedes Navarro, M.D., Director of Child Psychiatry Residency Training.



Department of Cardiovascular-Thoracic Surgery

#### NAJAFI, HASSAN, M.S., M.D., Chairman

Section of Cardiovascular Surgery:

- DeTAKATS, GEZA, B.A., M.S., M.D., Emeritus Professor, RMC and Consultant, PSLH
- DYE, WILLIAM S., JR., B.S., M.D., Professor, RMC and Senior Attending, PSLH
- GOLDIN, MARSHALL D., M.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- HUNTER, JAMES A., B.S., M.D., Professor, RMC and Senior Attending, PSLH
- JAVID, HUSHANG, B.S., M.S., M.D., Ph.D., Professor, RMC and Senior Attending, PSLH
- JULIAN, ORMAND C., B.S., M.D., Ph.D., Professor, RMC and Senior Attending, PSLH
- MONSON, DAVID O., A.A., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- NAJAFI, HASSAN, M.S., M.D., Professor, RMC and Senior Attending, PSLH
- SERRY, CYRUS, M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- WEINBERG, MILTON, JR., M.D., Associate Professor, RMC and Senior Attending, PSLH

Section of Thoracic Surgery:

FABER, L. PENFIELD, B.A., M.D., Professor, RMC and Senior Attending, PSLH

The Department consists of two Sections, Cardiovascular Surgery and Thoracic Surgery, having separate patient care functions but a strong combination of purpose in the training program. General surgical residents are given opportunities in depth in both areas during rotation through the clinical services.

Senior responsibilities are assumed by the cardiovascular-thoracic fellows in the Department. Completion of an approved general surgical residency is a prerequisite for consideration. Applications should be made not less than 18 months prior to the desired starting date. Two residents are appointed each year, either on January 1, or more commonly July 1. The conventional program makes the applicant eligible for examination by the American Board of Thoracic Surgery.

The duration of training varies from 24 to 36 months, the most common being 30 months. Residents who spend a minimum of two years receive one year of clinical training in

- JENSIK, ROBERT J., B.S., M.S., M.D., Professor, RMC and Senior Attending, PSLH
- KITTLE, C. FREDERICK, B.S., M.S., M.D., Professor, RMC and Senior Attending, PSLH
- MILLOY, FRANK J., M.S., M.D., Associate Professor, RMC and Associate Attending, PSLH
- LANGSTON, HIRAM T., B.A., M.S., M.D., Visiting Professor, RMC and Consultant, PSLH

Fellows:

- CAVILLO, CHARLES A., B.S., M.D., Instructor, RMC and Adjunct Attending, PSLH
- CHAWLA, SURENDRA K., M.D., Instructor, RMC and Adjunct Attending, PSLH
- DELARIA, DIACOMO ANTHONY, B.S., M.D., Instructor, RMC and Adjunct Attending, PSLH
- DePINTO, DONALD, B.S., M.D., Instructor, RMC and Adjunct Attending, PSLH
- PEDRAZA, PABLO, B.S., M.D., Instructor, RMC and Adjunct Attending, PSLH

each Section; ordinarily the additional six to twelve months are spent in the Cardiorespiratory Laboratory of the Department of Medicine, the Surgical Intensive Care Unit, cardiovascular surgical research or various combinations such as three months at Children's Memorial Hospital in Chicago and in the Department of Diagnostic Radiology, Many residents begin the program in the Cardiac Catheterization and Pulmonary Function laboratories, where the fundamentals of cardiac catheterization and angiography are stressed. Increasing responsibility in the performance of the various procedures is assigned appropriately as experience progresses. At the completion of this rotation the resident is able to judge which diagnostic procedure is necessary, perform it with assistance, and then interpret the results. During this period time is made available to learn electrocardiographic diagnosis, the essentials of electro-cardioversion and the operation of standard electronic monitoring equipment. Time

Cardiovascular-Thoracic Surgery . . .

is also allotted to the study and review of respiratory physiology through laboratory and clinical pulmonary function studies. Bedside teaching of cardiac diagnosis in adults and children is conducted during daily ward rounds. The candidate has assigned to him certain patients selected for study by the Director of the Laboratory. He is then responsible for the preporcedural work-up and presentation of such patients, following them throughout their hospital course. This rotation is usually two months in duration.

During an elective period of six to twelve months the candidate is given the opportunity of spending three months at Children's Memorial Hospital, which is an affiliate of Northwestern University School of Medicine, where he will be given senior responsibility in the care of patients. A majority of these patients have congenital cardiac anomalies requiring surgical treatment. An appreciable amount of independent surgical experience is gained during this rotation. An occasional resident is assigned to the Surgical Intensive Care Unit, which has 19 beds, most utilized by patients with major cardiovascular and thoracic surgical problems. The Intensive Care Unit is directed by a member of the Section of Cardiovascular Surgery who spends several hours per day in that Unit providing excellent bedside teaching opportunities. Two interns from Medicine, one from Surgery and students on their electives stimulate the assigned resident to participate in teaching. This rotation provides the possibility for a resident to engage in clinical review or investigation which may lead to publication. Many residents are assigned for one month to Diagnostic Radiology, where, under the direction of two radiologists with primary interest in peripheral angiography, the principles of arteriography are taught.

If the resident extends his training to three years he will have six additional months during which he can engage in ongoing investigative work in the cardiovascular surgical research laboratory. After six to twelve months of such an elective rotation he then spends two successive years in the two Sections. The first clinical year is spent in the Section of Thoracic Surgery, which is devoted exclusively to pulmonary and esophageal surgery with abundant endoscopic experience.

In addition to daily rounds and operative surgery there is a weekly formal cardiovascular-thoracic conference where cases of interest are presented by several participating institutions across the city and suburbs. Time is allotted for the teaching of diagnostic thoracic radiology and pathology by informal instruction and regularly scheduled conferences. A monthly session provides an opportunity for the residents to meet invited visiting professors. Residents are encouraged to submit papers for presentation to national societies, with their expenses incurred by the institution. In addition, each resident during his period of training will be sent to one of the national meetings of the Society of Thoracic Surgeons or the American Association for Thoracic Surgery.

The final rotation consists of twelve months on the Section of Cardiovascular Surgery. The resident is junior for the first six months, during which time the majority of his operative experience is in arterial surgery, the surgery of portal hypertension and closed cardiac operations. The final six months as senior resident provide for training and the performance of open-heart surgery with a continued effort in peripheral vascular surgery.

The two Sections operate in four rooms, five days each week for scheduled cases. Each week twelve to fourteen elective, and an average of one emergency, open-heart procedures are performed. Abdominal aneurysmectomy, aortic bifurcation grafting, carotid endarterectomy, and femoral-popliteal bypass make almost daily appearances on the schedule. Pacemaker implantation, surgery for portal and renal hypertension, ductus and coarctation re-

### Cardiovascular-Thoracic Surgery . . .

pair and closed mitral commissurotomy occur with some regularity. Frequent pulmonary and esophageal procedures include pneumonectomy. segmentectomy, decortication, lobectomy, esophagogastric resection, bronchoplasty or sleeve resection and endoscopic procedures of all types. Total cases average approximately 180 per month, with the resident staff performing all types. During the training period each candidate moves through the operating team from first assistant to assuming operative responsibility as various techniques are mastered. Daily rounds are conducted by attending physicians and provide excellent training in bedside clinical diagnosis. The senior resident assumes responsibility for the weekly cardiovascular thoracic conference, for the precise tabulation of monthly morbidity and mortality, and the daily surgical scheduling and the disposition of service personnel for routine activities. Commensurate

### Department of Diagnostic Radiology

#### BUENGER, RICHARD E., M.D., Chairman

- ACKERMAN, LAURENS V., M.D., Ph.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Biomedical Engineering)
- ADLER, YOLANDA T., M.D., Associate Professor, RMC and Associate Attending, PSLH
- ALCORN, FRANKLIN S., B.A., M.D., Professor, RMC and Senior Attending, PSLH
- BOGDONOFF, MAURICE L., B.S., M.D., Professor, RMC and Senior Attending, PSLH (also Internal Medicine)
- BOYCE, DENNIS W., B.S., M.D., Instructor, RMC and Adjunct Attending, PSLH
- BUENGER, RICHARD E., B.S., B.M., M.D., Professor, RMC and Senior Attending, PSLH
- CHARTERS, JOHN R., B.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- CHILCOTE, WAYNE S., JR., A.B., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- CHUNG-BIN, ANTHONY, B.S., M.Sc., Associate Professor, RMC and Senior Scientist, PSLH (also Therapeutic Radiology)
- CLARK JOHN W., M.D., Professor, RMC and Senior Attending, PSLH
- FERRY, THOMAS AIDEN, M.D., Instructor, RMC and Adjunct Attending, PSLH

with his ability he assumes full responsibility for the preoperative work-up and postoperative care of all patients and for the proper administration of the Service.

Within the Department there are several programs readily available to interested residents. These include a cardiac assist program, including utilization of intra-aortic baloon pumping directed by a member of the Section of Cardiovascular Surgery, the extra-corporeal circulation program, and the cardiovascular surgical research laboratory. If the resident chooses to spend one year in this laboratory prior to his clinical education he will be given the opportunity to acquire a Master's Degree in Surgery during this period.

A senior member of the Department has been made Director of Medical Education; this assures careful evaluation and promotion of activities directed at the education of the trainees.

- FORDHAM, ERNEST W., B.S., M.D., Professor, RMC and Senior Attending, PSLH (also Nuclear Medicine)
- GARDINER, RICHARD, A.B., M.D., Assistant Professor, RMC and Associate Attending, PSLH (also Pediatrics)
- GARNER, H. REX, B.A., M.D., Assistant Professor, RMC and Associate Attending, PSLH
- GRAINER, LORNE S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- HANSEN, JACK, B.S., M.D., Instructor, RMC and Adjunct Attending, PSLH
- HILL, B. Jay, M.D., Visiting Professor, RMC and Consultant, PSLH
- HUCKMAN, MICHAEL S., B.A., M.D., Associate Professor, RMC and Associate Attending, PSLH (also Neurological Sciences)
- KELSEY, JUDITH A., B.A., M.D., Instructor, RMC and Adjunct Attending, PSLH
- MATTHEW, GUY R., B.A., M.D., Associate Professor, RMC and Senior Attending, PSLH (also Internal Medicine)
- PATEL, SURESH K., M.B.B.S., Associate Professor, RMC and Associate Attending, PSLH
- PETASNICK, JERRY P., B.A., M.S., M.D., Associate Professor, RMC and Senior Attending, PSLH
- PIROK, RONALD, B.D.S., D.D.S., Instructor, RMC and Adjunct Attending, PSLH (also Otolaryngology and Bronchoesophagology)





Diagnostic Radiology !	PLOTKE, JOHN M., M.D., Instructor, RMC and Adjunct Attending, PSLH	SQUIRE, FAY H., M.D., Emeritus Professor, RMC and Emeritus, PSLH
	RAMOS, MARCUS V., M.D., Instructor, RMC and Adjunct Attending, PSLH RAMSEY, RUTH G., B.S., M.D., Instruc- tor, RMC and Adjunct Attending, PSLH	TURNER, DAVIS A., B.A., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
	The Department of Diagnostic Radiology provides consultation for well over 100,000 patient examinations each year. The department, which encompasses a space of 27,500 square feet, is located on the main floor of the hospital, and is divided, operationally and professionally, into six sections. There is a full-time staff of fifteen diagnostic radiologists, with a full-time director of each section. The other radiologists are	viewing devices within each subspecialty section for interpretation, consultation, and teaching. Special display areas are also located in the Emergency Room, Surgical Intensive Care Unit, Medical Intensive Care Unit and in the portable examination operational center. Each day the responsible sections consult on material in these outposts, as often as is necessary.
	assigned to individual sections, or rotate through several sections. All of the routine radiographic work is dis- played daily on specially loaded	Sections: The responsibilities for various types of radiologic examinations are divided between the subspecialty sections:
Section of General Radiology:	PETASNICK, JERRY P., M.D., Director  All examinations not specified under other sections, all emergency examinations, and the following special ex-	aminations: Arthrography, sialography, mammography, lymphangiography, peripheral arteriography, and abdominal arteriography (other than GU).
Section of Thoracic Radiology:	BOGDONOFF, MAURICE L., M.D., Director  Routine chest radiography and fluor-	oscopy, bronchography, tomography, lung biopsy, angiocardiography, coronary arteriography, thoracic aortography.
Section of Gastrointestinal Radiology	GARDINER, RICHARD, M.D., Director  Barium studies of the gastrointestinal tract, gallbladder and biliary ducts,	including T-Tube and operative cho- alngiography, salpingography and pneumogynecography.
Section of Urologic Radiology	PATEL, SURESH K., M.B.B.S., Director  Excretory urography, retrograde pyelography, arteriography and ve-	nals, renal cyst puncture and voidin cystography (other than pediatric patients).

Section of Neuroradiology

Radiology

Section of Pediatric

HUCKMAN, MICHAEL S., M.D., Director

Plain skull radiography, myelogra-

All routine and special radiographic

nography of the kidneys and adre-

GARDNER, H. REX, M.D., Director

phy, all head and neck arteriography and venography, ventriculography

procedures on children, with the ex-

ographic studies.

ception of neuroradiologic and arteri-

and pneumoencephalography.

Facilites: Modern equipment made by major American and foreign manufacturers is provided for all of the standard radiographic examinations in fifteen of the main departmental examining rooms. Some of these provide for general examinations, and some of them are equipped for special procedures, such as magnification radiography, or for examinations of particular areas of the body, such as the head or chest. A special room is equipped for mammography. Fluoroscopy of the gastrointestinal tract is performed in a suite of rooms. The examinations are remotely controlled, amplified, and televised with cine-radiography. There are seven laminographic devices

A recently constructed addition to the department houses the most sophisticated and up-to-date facilities for performing any of the most complicated special radiographic procedures. Two large contiguous rooms contain biplane serial filming of the highest technical capabilities for angiography. A remotely controlled specially mounted universally rotating table is equipped with a universally rotating fluoroscopic device. Cineradiography and tomography are immediately available for procedures on this machine requiring manipulation of patients and all the flow of contrast materials, such as: bronchography, myelography, cholangiography, film interpretation, however, is indipercutaneous biopsy, etc.

The neuroradiological unit contains a somersaulting chair with tomographic and arteriographic capabilities for pneumoencephalography. A precision, multi-modular tomographic room is reserved for tomography of the temporal bone and other special areas of the body requiring more accuracy than the other departmental traditional laminographic equipment affords. A special section is devoted to computerized tomography of the brain.

Additional equipment is located on the same floor as the operating rooms, In this area, fluoroscopic equipment is available for bronchography. One of the urographic rooms contains the most modern fluoroscopic filming and 77mm serial filming for retrograde pyelography, which is always performed under the direction of a radiologist. An adjacent cast room provides orthopedic radiologic services and consultation. The portable radiographic equipment for use throughout the hospital is dispatched from this area. The films are processed and displayed in this area for rapid interpretation and ease of accessibility.

Coronary arteriography is routinely performed on special biplane 35mm cine radiographic equipment located in the cardiorespiratory laboratory. These examinations are all performed jointly by the Section of Cardiorespiratory Diseases and the Section of Thoracic Radiology.

Training Programs: This department has been approved by the American Medical Association for residency training in straight diagnostic radiology. There are 15 residents in training, matching 5 residents annually through the NIRMP. The first of four years is spent in patient care training with rotations in various services of internal medicine and the surgical specialities. After the first year the resident staff is responsible for the interpretation of all radiography, and performance of every special procedure in the department. Every vidually checked by an attending staff member of the appropriate section, and every special procedure is supervised throughout its duration by a specialty radiologist. Various degrees of responsibility are delegated during the training program. During the second year, the first month is spent in a week-long assignment to each of the four major subspecialties: General Radiology, Gastrointestinal Radiology, Thoracic Radiology, and Urologic Radiology. There are tri-weekly physics courses for radiation safety and protection and daily indoctrination in emergency film interpretation. In order to

prepare the resident for night call rotation, which begins in the second month of training, the first year residents take second call with senior residents during the indoctrination period. For the remainder of the year second year residents rotate monthly through these four subspecialty areas.

During the third year, the residents rotate through each of the four major subspecialties for periods of six weeks, and also spend six weeks each in Pediatric Radiology and Neuroradiology. During this year three months is spent in the Department of Nuclear Medicine to fulfill the requirements of the American Board of Radiology. Weekly laboratory courses in physics are given for most of the year, in addition to the 34 lecture hours of a regularly scheduled didactic radiation physics course. A special year-end refresher course in physics is given in preparation for the written examination by the American Board of Radiology. During the fourth year of training, two or more months are spent in each of the subspecialties.

Clinical clerkships of 8-12 weeks duration are offered to third and fourth year students in Rush Medical College and other Chicago medical schools. These students are assigned to the departmental sections, providing a great stimulus for on-the-job teaching for residents as well as attending staff. Specially prepared programmed teaching courses are routinely scheduled during the clerkship.

Within the department, and other departments in the institution, courses are offered each year in physics, basic radioactive isotope techniques, biostatistics and related mathematics, and the programming and medical usage of computers.

Conferences: There are daily conferences within each section for critical review of the day's work with the attending staff, residents, interns, and medical students. At all these sessions material is selected for presentation at the section's weekly conference, Topics pertinent to this mate-

rial are assigned to residents for study or review prior to the presentation.

Daily noon conferences are held in a special departmental conference room equipped with film and slide display devices. Each section presents a conference once a week. Staff and house staff from other departments frequently attend these conferences, in which pathological material of interesting cases is coordinated.

Each week Radiology Grand Rounds are held in the hospital's main auditorium. The radiology residents are assigned several of these hours each year for the formal presentation, with written manuscript and slide material, of any radiological topic of their choice. Preliminary advisory sessions on the selection of topics and methods of presenting the material are held with the department chairman and the subspecialty faculty members.

The department provides radiologic consultation at various hospital-wide conferences: Medical Grand Rounds, Surgical Grand Rounds, Pediatric Grand Rounds, Neurology Grand Rounds, Tumor Conference, and Lymphoma Conference. The material for these conferences is assigned for pre-review and presentation by one of the residents in the appropriate section. He is supported at these conferences by an attending staff member.

Adjacent to the department library is a small photography room containing equipment for preparation of Polaroid prints and permanent slides for display of radiographic material at any of the hospital or departmental conferences.

All of the diagnostic radiology residents are urged to attend the scientific meetings of the Chicago Roentgen Society, which are held six times a year. These include seminars in angiography, neuroradiology, pediatric radiology, nuclear medicine, and therapeutic radiology.

Time is made available for all of the residents to attend refresher courses at the annual convention of the Radiological Society of North







#### Neuroradiology . . .

America, which is held in Chicago every fall. Although travel expenses are not paid, those residents wishing to attend approved out of town seminars, conferences, and conventions may arrange for the time to do so.

Teaching File: Each section maintains its own collection of material for training of radiology residents, medical students, and student technologists, in the form of the original films (which correlate pathologic and autopsy reports) or as slide material for study.

All coding of interesting teaching or pathological material is done on a sectional basis.

A radiological library is maintained within the department proper. A complete collection of radiologic and para-radiologic textbooks, bound journals, and current radiologic journals is available in this library. There are facilities for study in the department, and this material does not leave the library. The library is also a reservoir for textual and slide material from previous Radiology Grand Rounds presentations.

# Department of General Surgery

#### SOUTHWICK, HARRY W., A.B., M.D., Chairman

- APTER, JULIA T., B.A., M.S., M.D., Ph.D., Professor, RMC and Senior Attending, PSLH
- CALDWELL, RICHARD G., A.B., M.S., M.D., Assistant Professor, RMC and Associate Attending, PSLH
- COLE, WARREN H., M.D., Emeritus Professor, RMC and Emeritus, PSLH
- DAVIS, CARL B., JR., A.B., M.D., Associate Professor, RMC and Associate Attending, PSLH
- DePEYSTER, FREDERIC A., A.B., M.D., Professor, RMC and Senior Attending, PSI H
- DIFFENBAUCH, WILLIS G., B.S., M.D., Associate Professor, RMC and Senior Attending, PSLH
- DOOLAS, ALEXANDER, B.S., M.D., Associate Professor, RMC and Associate Attending, PSLH
- ECONOMOU, STEVEN G., B.A., M.D., Professor, RMC and Senior Attending, PSLH
- FELL, EGBERT, M.D., Emeritus Professor, RMC and Emeritus, PSLH
- GILCHRIST, R. KENNEDY, B.S., M.D., Emeritus Professor, RMC and Emeritus, PSLH
- GUYNN, VERNON L., B.S., M.D., Assistant Professor, RMC and Associate Attending, PSLH
- HABEGGER, LOREN J., B.E., M.E., Ph.D., Instructor, RMC
- HALEY, RONALD G., B.S., M.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- HANSELMAN, RUSSELL C., A.B., M.D., Assistant Professor, RMC and Senior Attending, PSLH
- HOLMBALD, EDWARD C., M.D., Emeritus Professor, RMC and Emeritus, PSLH
- JAMIESON, ROBERT W., P.H.B., M.S., M.D., Associate Professor, RMC and Senior Attending, PSLH

- JOHNSON, FRANK R., S.B., M.D., Associate Professor, RMC and Senior Attending, PSLH (also Pediatrics)
- LAWTON, STANLEY, M.D., Emeritus Professor, RMC and Emeritus, PSLH
- LEVINGER, LAURANCE W., B.A., M.D., Instructor, RMC and Adjunct Attending, PSLH
- McDONALD, GERALD, M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- McDONALD, OWEN G., B.S., M.D., Associate Professor, RMC and Associate Attending, PSLH
- McMILLIAN, FOSTER L., B.S., M.D., Emeritus Professor, RMC and Emeritus, PSLH
- MERKEL, FREDERICK K., B.S., M.S., Associate Professor, RMC and Associate Attending, PSLH (also Internal Medicine)
- MEYER, HAROLD I., M.D., Emeritus Professor, RMC and Emeritus, PSLH
- OLWIN, JOHN H., A.B., M.D., Emeritus Professor, RMC and Emeritus, PSLH
- OVERSTREET, ROBERT J., B.S., M.S., M.D., Assistant Professor, RMC and Associate Attending, PSLH
- PAUL, HAROLD A., B.S., M.D., Associate Professor, RMC and Senior Attending, PSLH
- POEPPEL, ROGER B., B.D., Ph.D., Instructor, RMC
- POMERANTZ, MARC A., B.A., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- RADWAY, PAUL R., B.S., M.D., Instructor, RMC and Adjunct Attending, PSLH (LOA)
- RASMUSSEN, ALFRED, M.D., Emeritus Professor, RMC and Emeritus, PSLH
- REYNOLDS, JOHN T., B.S., M.S., M.D., Professor, RMC and Senior Attending, PSI.H
- ROSEMAN, DAVID L., B.S., M.S., M.D., Associate Professor, RMC and Associate Attending, PSLH

#### General Surgery . . .

SCHMIDTKE, WENDELL H., B.S., M.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

SCHUETZ, JAMES E., A.B., M.D., Instructor, RMC and Adjunct Attending, PSLH

SHAPIRO, THOMAS M., B.A., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

SHEPHERD, RICHARD I., A.B., M.D., Instructor, RMC and Adjunct Attending, PSLH

SHOREY, WILLIAM B., M.D., Associate Professor, RMC and Senior Attending, PSLH

SOUTHWICK, HARRY W., A.B., M.D., Professor, RMC and Senior Attending, PCI H STRAUS, ALBERT K., A.B., M.S., M.D., Ph.D., Assistant Professor, RMC and Assistant Attending, PSLH

STRAUS, FRANCIS H., B.S., M.D., Emeritus Professor, RMC and Emeritus, PSLH

URRUTIA, CARLOS O., B.S., M.D., Instructor, RMC and Adjunct Attending, PSLH

WITKOWSKI, LEON J., B.S., M.S., M.D., Professor, RMC and Senior Attending, PSLH

Optimal surgical care is best rendered to patients by a surgical staff that is not only of the highest caliber, but that is well balanced in all of its various Departments. A staff so composed provides a rich opportunity for the trainee, whether resident or fellow, to obtain a well-rounded, and appropriately progressive, education, both in basic surgery and in the disciplines of specialty surgery. The Department of General Surgery has and accepts the broadest responsibility for training within this environment.

First Year Residency: Appointments to the first year of training in General Surgery are primarily categorical (5), although an equal number are offered in the categorical setting for those who have appointments elsewhere in a surgical specialty, or a Family Practice Residency. In addition, trainees in Orthopedic Surgery, Urology, Neurosurgery, Otolaryngology, Plastic Surgery and Ophthalmology share a primary basic year of postgraduate training with the General Surgical trainees. The rotations are similar for all house officers, except for those in Ophthalmology, whose training program is discussed elsewhere. There are four General Surgical Services in the hospital, and six months is spent, in two-month rotations, on three of the different Services. One month is spent in Cardiovascular Surgery, one month in Thoracic Surgery and one month in the Surgical Intensive Care Unit. Three months remain for elective rotations through the surgical specialties, including Orthopedic Surgery, Urology, Neurosurgery, Otolaryngology, Plastic Surgery and Anesthesiology.

Second Year Residency: Five house officers continue their training as part of the categorical program in the second year, although all appointments are subject to annual review. The second year of the residency is, in reality, the completion of the core training program in basic surgery. No matter what the goals of an individual resident may be, all are assigned on similar rotations with the expectation of similar performance. Generally, six months is spent in General Surgery, and six months on specialty services, although the specialty rotations are for two months during the second year of the residency. Those not continuing in General Surgery are expected to spend at least one of these two-month electives in their chosen specialty area, to confirm interest in proceeding with additional training in the particular area. The second year resident is buttressed on one side by the first year trainee, and the medical students assigned to his service, whom he must begin to guide and teach, and on the other side by the senior residents and attending surgeons for whom his progress is a primary responsibility. He performs surgery under the supervision of an attending surgeon, or senior resident

General Surgery . . .

with staff rank, with equal emphasis on surgical principles and correct operative techniques. The variety and complexity of the operations he performs increases commensurate with his demonstrated ability. The first two years of the residency program are considered of great significance, as it is during this time that a strong basic foundation is laid, which can afford the background for a rewarding continuation of residency training, and a lifetime of professional activity.

Third Year Residency: Assignments during the third year are more flexible. Those who have an inclination to develop and explore a basic research project are strongly encouraged to do so. However, all house officers are expected to begin work on a basic or clinical research project at this time. Those residents not assigned to the laboratory will again rotate through various clinical services. The entire year need not necessarily be spent in the research laboratory; this is particularly true if the background of the project is developed prior to devoting full time during the third year. A variety of elective rotations are available for six months or two three-month rotations, either in other departments within the institution, or in acceptable programs elsewhere.

Exposure to basic research at this stage fulfills several essential requisites to continued maturation in the science of surgery. After two clinical years, the resident is in a position to formulate questions to which answers may be found in the laboratory. Designing and executing an experiment rewards him with the ability to evaluate, more intelligently, the information thrust upon him in the surgical literature. This can only result in a better clinical surgeon. The research rotation also crystallizes in the mind of the house officer the degree to which he may choose to include laboratory or clinical research in his ultimate career. Certain course work is available for the trainee during this third year, which combined with a thesis based on the trainee's project may complete the qualifications for consideration for a Master's Degree in Surgery. Each resident has several options in selection and execution of surgical experiments. He may choose to participate in an ongoing project, where he would be responsible for one facet of a broad subject; or he may choose to work alone on a project of his own choosing or assigned by the Director of Surgical Research. It is expected that the third-year resident will attend the various departmental conferences, whenever possible, and it is mandatory that he attend weekly surgical seminars held under the sponsorship of the Research Director. There is a Departmental Research Conference, held once a month, where more formal presentations are made, both by house officers in the basic research experience and by those working on clinical research projects.

Fourth Year Residency: The fourth year is one of full clinical activity, with the resident assuming an increasing proportion of the responsibility for the management of patients on the service to which he is assigned. He is in a way the Executive Assistant of the senior resident and is expected to be fully cognizant of the exact status of all patients on the service. Six months of the year are spent on General Surgery Services, and the remainder in two three-month specialty rotations. The elective rotations should be in areas not previously covered in any depth, particularly by those who undertook a series of clinical rotations in the third year of training. It should be noted, again, that those rotations may take place either in the Medical Center or its affiliated hospitals, or occasionally, in other hospitals approved by the Chairman of the Department. Most fourth-year trainees rotate through one of the affiliated hospitals at that time. This affords the trainee an opportunity to see a larger volume of the more common



#### General Surgery . . .

surgical problems than are seen in the largely tertiary care Medical Center.

First Year Residency: A fifth year resident spends the entire year as senior trainee on one of the four General Surgery Services, or on the Peripheral Vascular Service. In each instance, he is charged with ultimate responsibility for the satisfactory deliverance of appropriate patient care. Thus, he begins to develop the ability to delegate appropriate duties to subordinates, while at the same time becoming fully knowledgeable on all matters pertaining to the care of surgical patients.

Health Center patients are admitted to all of the General Surgery Ser-

vices. The senior resident cares for these patients under the supervision of an attending surgeon, either with his assistance in the Operating Room, or with the assistance of one of the junior residents on the service. Emergency Health Center admissions are assigned to the service of the senior resident on call for that particular day, and he is responsible for their care while they are hospitalized. under the supervision of the Chief of the Service. One morning per week is devoted to the Health Center Surgery Clinic where new patients and follow-up visits on previously hospitalized patients from the service are

Section of Pediatric Surgery

#### JOHNSON, FRANK R., M.D., Director

The care of infants, children and adolescents with congenital and acquired problems requiring surgical care has undergone great change in recent years. The rotation of surgical residents through the Pediatric Surgical Service brings them into contact with these problems under supervision of an attending pediatric surgeon and association with attending pediatricians and the pediatric house staff. Rounds are made several times a week in the newborn and neonatal nursery, where among the 3,000 deliveries yearly there are congenital problems amenable to surgical treatment. In addition, with the development of the Neonatal Center for high risk infants, it is anticipated that there will be an increase in numbers of these patients hospitalized. Daily rounds are made on pediatric surgical patients on the wards for infants, children and adolescents. Outpatient clinics twice weekly, with an average census of 15-20 patients each clinic day, offer the staff ample opportunity to examine, diagnose and pre-

pare patients for elective surgical care, and to follow patients treated in the Emergency Room on an ambulatory basis. Two days a week are set aside for elective surgery where the resident has an opportunity to assist and observe surgical treatment as a member of the operating team. Often he is first assistant to the senior resident or attending surgeon, and depending on his interest and ability. he may operate with the assistance of the senior resident or attending surgeon. The first year resident is primarily responsible for the pre- and postoperative care of the patients on his service and under the guidance and supervision of his senior resident presents his patients on daily ward rounds to the attending surgeon for additional consultation. The Emergency Room is a constant source of patients presenting problems resulting from burns, blunt and penetrating trauma, and the acute abdominal problems of appendicitis, Meckel's diverticulitis, intussusception, and other acute pediatric surgical disorders.

Section of Transplantation

MERKEL, FREDERICK K., M.D., Director

The Section of Transplantation

offers experience in both the clinical and research aspects of organ transplantation. The clinical service is a part of one of the four General Sur-

#### Transplantation . . .

gery Services. The organ procurement and preservation program is one of the most active in the country; this past year 104 kidneys were procured by this Section and 72 kidneys were preserved for transplantation. During the past year, more than 212 operations were carried out on transplant and dialysis patients on this service. Procedures were not limited to kidney transplantation, but included the many varied operative procedures necessary to prepare the patients for transplantation, such as nephrectomy, splenectomy, and vascular access. The surgical house staff assists with or carries out these procedures under the supervision of the transplant surgeons. Daily rounds are made on these patients and a daily Renal/Transplant Conference is held in conjunction with the nephrologists. An outpatient clinic is held weekly Preoperative and postoperative care for transplant recipients is carried out in conjunction with the Nephrology Service. Although the principal emphasis of this Section has been on kidney transplantation, one pancreas transplant has already been accomplished and programs are underway to continue pancreatic transplantation and initiate liver transplantation as well.

Active research is being carried out in organ perfusion preservation for those interested in a research experience. The surgical procedures performed on experimental animals are done in the animal resources facility and the preservation studies are carried out in the Preservation Laboratory.

#### Department of Neurological Surgery

### WHISLER, WALTER W., M.D., Ph.D., Chairman

D'ANGELO, CHARLES M., B.A., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

OLDBERG, ERIC, B.S., M.D., Ph.D., Emeritus Professor, RMC and Emeritus, PSLH

PENN, RICHARD D., B.A., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

SELBY, ROY, B.S., M.D., Visiting Associate Professor, RMC and Consultant, PSLH

SUGAR, OSCAR, M.D., Visiting Professor, RMC Consultant, PSLH

VORIS, HAROLD C., M.D., Ph.D., Emeritus Professor, RMC and Consultant, PSLH

WHISLER, WALTER W., M.D., Ph.D., Professor, RMC and Senior Attending, PSLH (also Neurological Sciences)

The Department of Neurological Surgery offers a six year post-M.D. training program approved by the American Board of Neurological Surgery. During the first year, time is spent on rotation through general surgery and other surgical departments to develop a broad knowledge of the surgical arts and sciences. The second year is spent in clinical neurosurgery with emphasis on diagnosis and diagnostic neuroradiology. In the third year, there is a six-month rotation in neurology and six months in neuropathology. The fourth year is set aside for research or electives and the last two years are in clinical neurosurgery. Rotations can often be modified to accommodate special

interests. The clinical aspects of the program are organized around the principle of progressively graded responsibility with appropriate supervision.

The program is designed to present the basic neurological sciences as well as the practical aspects of neurosurgery. During the year, the resident will attend neurology and neurosurgery grand rounds, brain cutting seminars, neurosurgical topic seminars, and the basic neuroscience course (neuroanatomy, neurophysiology and neurochemistry).

Primary among the strengths of the Department of Neurosurgery is the broad variety of clinical problems which are studied and managed and



#### Neurological Surgery . . .

the utilization of all of the modern neurosurgical techniques available. Besides general cranial, spinal and pediatric neurosurgery, many microsurgical and stereotaxic procedures are performed. An active program is also maintained for the medical treatment of malignant brain tumors. The research facilities in the Department of Neurosurgery include a tissue culture laboratory, several highly specialized neurochemistry laboratories, a general biochemistry laboratory, and a neurophysiology laboratory for stereotaxic and microsurgical work.

# Department of Obstetrics and Gynecology

WILBANKS, GEORGE D., M.D., The John M. Simpson Chairman of Obstetrics and Gynecology

ARCHIE, JULIAN T., B.A., M.D., M.P.H., Assistant Professor, RMC and Assistant Attending, PSLH

BAUM, HUGO C., B.S., M.D., Associate Professor, RMC and Senior Attending, PSLH

BEEBE, ROBERT A., B.S., M.D., Assistant Professor, RMC and Senior Attending, PSLH

BOYSEN, HARRY, B.S., M.D., Professor, RMC and Senior Attending, PSLH

BURKS, JAMES L., M.D., Associate Professor, RMC and Associate Attending, PSLH

CEPEDA, ALBERTO, M.D., Associate, RMC and Adjunct Attending, PSLH

DRAA, CECIL C., B.S., M.D., Emeritus Professor, RMC and Emeritus, PSLH

DONOVAN, WILLIAM H., B.A., M.D., Instructor, RMC and Adjunct Attending, PSLH

FINOLA, GEORGE C., B.A., M.D., Associate Professor, RMC and Senior Attending, PSLH

GEITTMAN, WILLIAM F., B.A., M.D., Associate Professor, RMC and Emeritus, PSLH

GHORBANI, BIJAN, M.D., Instructor, RMC and Adjunct Attending, PSLH

HENDRICKSON, FRANK R., B.A., M.D., Professor, RMC and Senior Attending, PSLH (also Therapeutic Radiology)

JAKUBOWSKI, ALEKSANDER, M.D., Instructor, RMC and Adjunct Attending, PSLH

KHAN, NAJMA, M.D., Instructor, RMC and Adjunct Attending, PSLH

LEE, ALICE W., M.D., Instructor, RMC and Adjunct Attending, PSLH

LONG, JOHN S., B.S., M.D., Assistant Professor, RMC and Senior Attending, PSLH MENGERT, WILLIAM F., M.D., Emeritus Professor, RMC and Emeritus, PSLH

NICHOLS, ERVIN E., M.D., Visiting Professor, RMC and Consultant, PSLH

NAMA, PRABHAVATHI, M.D., Associate, RMC and Adjunct Attending, PSLH

NORTHROP, GRETAJO, B.S., M.S., Ph.D., M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Internal Medicine)

OLSON, ROBERT P., A.B., M.S., M.D., Assistant Professor, RMC and Associate Attending, PSLH

ORBAN, DENES, M.D., Associate Professor, RMC and Senior Attending, PSLH POURTABIB, MOHAMMAD, M.D., In-

structor, RMC and Adjunct Attending, PSLH

PRIEST, FRED O., M.D., Emeritus Professor, RMC and Emeritus, PSLH

SCHEWITZ, LIONEL J., M.B.C.H., Assistant Professor, RMC and Assistant Attending, PSLH

SHEIKH, GHULAM N., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

TJIOOK, GAN L., M.D., Instructor, RMC and Adjunct Attending, PSLH

TRUCHLY, VASIL, M.D., Assistant Professor, RMC and Senior Attending, PSLH

TYRER, LOUISE B., B.S., M.D., Associate Professor, RMC and Consultant, PSLH

WILBANKS, GEORGE D., A.B., M.D., Professor, RMC and Senior Attending, PSLH

WOLFF, JOHN R., M.S., M.D., Professor, RMC and Senior Attending, PSLH (also Psychiatry)

The Department of Obstetrics and Gynecology offers a four-year postmedical school training program approved by the American Board of Obstetrics and Gynecology, which emphasizes comprehensive experience in all phases of obstetrics and gynecology, as well as experience in internal medicine, neonatology, and obstetric and gynecologic pathology to prepare the physician for the practice of general obstetrics and gynecology, for further subspecialty training, or for a career in academic obstetrics and gynecology. Elective time may be spent in clinical rota-

Obstetrics and Gynecology . . .

tions or basic research programs in the Department of Obstetrics and Gynecology or in related specialties, depending on the interests of the individual resident. There are four positions at each year of the program for a total of sixteen residents. No internship is required in order to begin the program, but those with prior internship may begin at the second year if positions are available.

All members of the attending staff are certified by the American Board of Obstetrics and Gynecology. They are actively engaged in the teaching programs for house staff and medical students. Residents at all levels are involved in student teaching activities with Rush Medical College.

Approximately 3,000 obstetric patients are delivered in the hospital each year; 60 percent of these are Health Center patients whose definitive care is given by the members of the house staff under the supervision of the attending staff. More than 1,600 surgical procedures are performed by the department each year; about one-third are Health Center patients on whom surgery is performed by the resident staff. Since this department has been noted for pioneering in vaginal surgery, special emphasis is placed upon this area.

The residents are organized into two practice groups. Patients are assigned to each group and are seen on appointment by members of that group. This not only assures a continuity of patient care, but allows the physician to begin training early for office practice. The senior residents of each group are given maximum responsibility for patient care, with attending physicians readily available for consultation and instruction. Teaching conferences are clinically oriented, with maximum resident participation.

The department has staff representing the major obstetric and gynecologic subspecialties: perinatal biology, endocrinology, oncology, community obstetrics and family planning, and psychosomatic obstetrics and gynecology. Each subspecialty is involved in interdisciplinary associations to broaden its patient care. teaching, and research objectives (e.g. the endocrinology service involves ob-gyn, medical and pediatric endocrinologists), and there is maximum inter-department exchange and cooperation (e.g., between perinatal biology, endocrinology, and oncology, who use the same rhesus monkey colony as experimental models). Faculty with these diverse backgrounds. vet with a common interest in clinical obstetrics and gynecology, offers the resident depth in basic training, and opportunity for specialized consultation and learning. Post-residency fellowships are currently offered in perinatal biology and others are being developed in each of the subspecialties in preparation for the subspecialty board requirements of the American Board of Obstetrics and Gynecology.

Ambulatory Reproductive Health Care Unit

#### BURKS, JAMES L., M.D., Director

Community obstetrics is closely allied with the Department of Community Health of the Division of Medicine and the Mile Square Health Center. One of the aims of Rush-Presbyterian-St. Luke's Medical Center is to innovate methods for the delivery of health care to all segments of the population. Residents and students are involved in the family planning clinics. In the relationship with the Mile

Square Health Center, opportunity is offered to those interested to become acquainted with sociologic and ethnic ramifications of delivery of health care to the indigent. Continuous evaluation of the impact of these efforts as they relate to improved maternal and infant health, cancer screening, and other epidemiologic aspects of the community is in progress. A resident may elect to spend time in any of these projects.

Section of Psychosomatic Obstetrics and Gynecology

#### WOLFF, JOHN R., M.D., Director

Recognizing that the obstetriciangynecologist is in reality the primary
care provider of health care to his
patients, the Section of Psychosomatic Obstetrics-Gynecology is organized to stimulate and encourage expertise in this area. A productive
liaison exists with the Department of
Psychiatry. Combined appointments
have produced an interdisciplinary
team of clinicians and a research
group. Consultation concerning patients with psychomatic problems
and/or unusual emotional difficulties
is available to the staff at all times.

Medical students attend lectures in Phase II during the course in Human Reproduction. During the Phase III clerkships weekly seminars include patient interviews and discussion of the psychosocial aspects of illness, especially relating to the problems of depression, the reaction to gynecologic surgery, cancer, and sterilization. Patients seen in the Adolescent Family Center and the

Family Unit provide an insight into the varied aspects of health care and to the moral and ethical questions on a practical basis. Elective courses are offered to those who wish to pursue psychosomatic obstetrics and gynecology in more depth.

Residents have opportunity to acquaint themselves with the effect of the emotions on reproductive and gynesic physiology, as well as the importance of social and economic factors in physical and mental health. The case method appears to serve as the optimum in teaching and experience.

The entire department is devoted to the principle of good patient care and to developing new systems for delivering this care to the community. Psychosomatic obstetrics and gynecology adheres to this by stimulating trainees to develop their own special interests and by providing opportunities for enhancing their understanding and expertise.

Section of Perinatal Biology

### WILBANKS, GEORGE D., M.D., Acting Director

The activities of both inpatient and outpatient services are geared to providing the highest quality of total care possible. Whenever appropriate, patients who are believed to be at increased risk of an unsuccessful obstetric outcome are seen in specialty clinics where consultative expertise is available to the patient in a multidiscipline setting that includes the obstetrician. Liberal use is made of similar inpatient services for those patients who cannot be managed adequately on an outpatient basis. Multiple weekly conferences and

seminars directed by attending staff provide ample opportunity to the resident staff and medical students to explore the clinical problems encountered, as well as to review the basic concepts of perinatal biology.

The resident also has the opportunity for in-depth studies of special problems of obstetrics in the Perinatal Biology Laboratory (formerly a division of the Department of Embryology of the Carnegie Institution of Washington). This laboratory is dedicated to the investigation of maternal and fetal physiologic and pathologic processes and utilizes the rhesus monkey as the experimental model.

Section of Gynecologic Oncology

#### ORBAN, DENES, M.D., Director

Gynecologic Oncology is an integral part of the combined oncology services, involving radiation therapy, medical oncology, surgical oncology, and pathology. There are weekly tumor conferences and tumor clinics, along with day-to-day management by the resident staff of patients with gynecologic malignancies. Over 150 patients with various types of gynecologic malignancies are treated each year. All residents are involved in Gynecologic Oncology . . .

basic cancer patient care and may elect to pursue a clinical or basic project during their training period.

Several clinical research projects are in progress within the division and in cooperation with the nation-wide Gynecologic Oncology Group, involving surgery, radiation therapy, or chemotherapy, or various combinations of two or more types of therapy. Evaluation of early cervical neoplastic lesions is made in a special clinic utilizing cytology, colposcopy, and colpomicroscopy. More basic studies are being conducted con-

cerning in vitro carcinogenesis and call differentiation.

The emphasis of this subspecialty is to train the resident and student to be adept at managing clinical problems in the diagnosis, therapy and prevention of gynecologic malignancies. Intelligent management of clinical problems comes from a thorough understanding of the pathogenesis of the disease. The staff's interest is clinical, and basic research encourages a scientific approach to solving clinical problems.

Section of Gynecologic Endocrinology

TRUCHLY, VASIL, M.D.

This section of the Department of Obstetrics and Gynecology is being developed and will function as follows:

- (1) Laboratories that are able to assay protein and steroid hormone levels in excretory, secretory or tissue amounts will be established, some in conjunction with the Medical Division Endocrinology Section Laboratories now in being. Clinical and research application of current methods of analysis will be used, for example, saturation analysis (competitive protein binding), radioimmunoassay, gas-liquid chromatography, chemical analysis, etc.
  - (2) Clinics and seminars devoted

to reproductive and gynecologic endocrine problems will be held in conjunction with other divisions of the Hospital and Medical School sharing mutual interest.

- (3) The practical value and intellectual stimulation that evolves from these efforts will be available for medical students, residents, fellows and staff at each level of development. The learning stimulus and mutually beneficial arrangement of this total program should aid the continued progress of both individuals and institution.
- (4) Specific programs for residents and fellows will be arranged under the guidance of the faculty of the Section.

# Department of Ophthalmology

HUGHES, WILLIAM F., M.D., Chairman

BROWN, DAVID V. L., B.S., M.D., Assistant Professor, RMC and Associate Attending, PSLH

DEUTSCH, EMIL, M.D., Emeritus Professor, RMC and Emeritus, PSLH

FOWLER, EARLE B., B.S., M.D., Emeritus Professor, RMC and Emeritus, PSLH

GAMBLE, RICHARD C., M.D., Emeritus Professor, RMC and Emeritus, PSLH

HAAS, JOSEPH S., B.A., M.S., M.D., Professor, RMC and Senior Attending, PSLH

HUGHES, WILLIAM F., A.B., M.D., Professor, RMC and Senior Attending, PSLH

KAPLAN, JOEL, B.A., M.S., M.D., Associate Professor, RMC and Associate Attending, PSLH

LEE, CHANG-BOK, M.D., Instructor, RMC and Adjunct Attending, PSLH

LEECH, VERNON M., M.D., Emeritus Professor, RMC and Emeritus, PSLH

LEWICKY, ANDREW O., B.S., M.D., Instructor, RMC and Adjunct Attending, PSLH

MONCREIFF, WILLIAM P., M.S., M.D., Emeritus Professor, RMC and Emeritus, PSLH

NOOTENS, RAYMOND H., B.S., M.D., Instructor, RMC and Adjunct Attending, PSLH

NOWICKI, NORBERT J., B.S., M.D., Assistant Professor, RMC and Associate Attending, PSLH

PUSHKIN, EDWARD A., B.S., M.D., Associate Professor, RMC and Associate Attending, PSLH

RADVILA, IZOLDA M., M.D., Instructor, RMC and Adjunct Attending, PSLH

ROBBIN, DAVID S., B.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH



#### Ophthalmology . . .

SCHERIBEL, KARL, B.S., M.D., Emeritus Professor, RMC and Emeritus, PSLH

The residency training program in Ophthalmology is approved by the Residency Review Committee of the American Medical Association and the American Board of Ophthalmology. Applications are accepted from those who have completed a general internship or those who enter a combined pre-ophthalmological internship of one year followed by a Residency in Ophthalmology for three years. This is a three-year program, two years of which are spent at Presbyterian-St. Luke's Hospital, and one year which includes a full-time postgraduate course of three to five months that can be taken any time during the first two years at any recognized institution or the Lancaster Course; tuition fees, allowance for books, and regular resident's stipend are provided by the hospital. Some individuals take an additional six months on a research fellowship.

The teaching program is built around the initial examination, treatment and followup of patients from the beginning of training rather than a pyramidal system of graduated responsibilities ending in a final period of surgery. Health Center patients are the direct responsibility of the residents, under close supervision of the attending staff, and there are approximately 3500 outpatient visits per year. The rate of development of surgical technic by the resident depends on his level of competence; extraocular procedures are performed soon after beginning the residency and

SPIRO, BARBARA, M.D., Associate Professor, RMC and Assistant Attending, PSLH

intraocular procedures after six to twelve months. The average resident performs approximately 100-150 major procedures during his three years of training. Other responsibilities of the resident include consultations with other departments, and the admission examination of private patients with active participation in any surgical procedure. Residents are assigned for six month rotations to groups of two or three attending ophthalmologists in order to provide better rapport and followup of patients.

Formal teaching rounds on Health Center patients are held once a week. A weekly conference discusses a variety of subjects: journals, reports by staff or residents who have attended a scientific meeting elsewhere, and systematic coverage of important subjects or the American Academy Course in Continuing Education. Regular and special conferences at the University of Illinois Eye and Ear Infirmary are available. Grand Rounds in neurology, pediatrics, surgery, and medicine are attended if the subject is of ophthalmologic interest. Surgical specimens prepared in the Eye Pathology Laboratory are reviewed by the residents and discussed with attending staff. Each resident is urged to participate in either a clinical or laboratory project.

Appointments are usually made at least by the fall preceding the beginning of residency July 1 st.

# Department of Orthopedic Surgery

GALANTE, JORGE O., M.D., Chairman ANDRIACCHI, THOMAS PETER, Ph.D., Assistant Professor, RMC and Assistant Scientist, PSLH (also Biomedical Engineering)

DeWALD, RONALD L., B.S., M.D., Professor, RMC and Associate Attending, PSI H

GALENTE, JORGE O., B.A., M.D., Professor, RMC and Senior Attending, PSLH

HARK, FRED W., M.D., Emeritus Professor, RMC and Emeritus, PSLH

HARK, WILLIAM A., B.A., M.D., Associate Professor, RMC and Associate Attending, PSLH

HECK, CHARLES V., B.S., M.D., Clinical Professor, RMC and Consultant, PSLH HEJNA, WILLIAM F., B.A., M.D., Profes-

sor, RMC and Senior Attending, PSLH HOWARD, FRANCIS M., B.A., M.D., Associate Professor, RMC and Associate Attending, PSLH

KUO, KEN, B.A., M.D., Associate, RMC and Assistant Attending, PSLH

LAMBERT, CLAUDE N., A.B., M.S., M.D., Emeritus Professor, RMC, Senior Attending, PSLH

RAY, ROBERT D., B.A., M.A., Ph.D., M.D., Professor, RMC (LOA) and Senior Attending, PSLH

#### Orthopedic Surgery . . .

ROSTOKER, WILLIAM, B.S., M.S., Ph.D., Complemental Faculty and Visiting Professor. RMC

SCHENCK, ROBERT, B.S., Assistant Professor, RMC and Assistant Attending, PSLH (also Plastic and Reconstructive Surgery)

SHAPIRO, FRED, B.S., M.D., Associate Professor, RMC and Senior Attending, PSI H SHAPIRO, JULES, B.A., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

SHEINKOP, MITCHELL B., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

A five year approved residency program in Orthopedic Surgery is offered at the Medical Center. The first year is a core surgical internship where the trainee rotates through general surgery, plastic surgery and the neurosurgical services to acquire basic knowledge in surgical sciences before his full participation in the orthopedic program, Coordinated rotations are offered in the following four years of orthopedic training including the orthopedic service at Presbyterian-St, Luke's Hospital, and trauma rotations at affiliated network hospitals. The last year of training is spent as a senior resident in the Orthopedic Department at the Medical Center. Considerable opportunity for independent management of patients is provided at this level of training. For those interested in developing skills in a particular problem, an additional year can be arranged on an individual basis in institutions in this country or abroad.

All of the patients admitted to the service are available for teaching. Clinical experience encompasses a broad scope of musculoskeletal problems including spinal diseases, modern hip and knee surgery, surgery for arthritis, amputations, trauma and pediatric orthopedics. In addition to the private outpatient offices located

in the Professional Building, active teaching clinics are conducted.

The research facilities of the department include tissue culture laboratories for hard tissue histology, biochemistry laboratories, radioisotope facilities and a laboratory for bioengineering studies. Two major programs are conducted in these facilities. The biochemistry program includes studies of the role of enzymes in bone formation and resorption, metabolic studies of bone and cartilage and studies of bone immunology. A bioengineering program is conducted in conjunction with the Department of Materials Engineering at the University of Illinois, Chicago Circle Campus. Basic studies on total joint replacement and in the mechanics of idiopathic scoliosis constitute the core of this program.

There is a seminar program in basic sciences, regular review of the histopathology of the musculoskeletal system, and weekly teachingoriented seminars as well as research conferences.

The residency program is organized around the principle of progressively increasing responsibility, with adequate supervision. Inquiries concerning the program should be directed to the Chairman of the Department.

Department of Otolaryngology and Bronchoesophagology

### CALDARELLI, DAVID D., M.D., Chair-

AIMI, KENJI, M.D., Associate Professor, RMC and Associate Attending, PSLH ANDREWS, ALBERT H., B.S., M.S., M.D., Professor, RMC and Senior At-

tending, PSLH

BUCKINGHAM, RICHARD A., M.D., Lecturer, RMC and Lecturer, PSLH

CALDARELLI, DAVID D., M.S., M.D., Professor, RMC and Senior Attending, PSLH

COOMBS, ARTHUR J., M.D., Emeritus, RMC and Emeritus, PSLH

FRIEDBERG, STANTON A., A.B., M.D., Professor, RMC and Senior Attending, PSI.H

GRIFFITH, THOMAS E., M.D., Lecturer, RMC and Lecturer, PSLH

HOLINGER, PAUL H., B.S., M.S., M.D., Professor, RMC and Senior Attending, PLSH

HUTCHINSON, JAMES C., M.D., Instructor, RMC and Adjunct Attending PSLH RATKO, ARTHUR L., M.D., Assistant

Professor, RMC and Associate Attending, PSLH

Otolaryngology and Bronchoesophagology. .

RAZIM, EDWARD A., B.S., M.D., Assistant Professor, RMC and Associate Attending, PSLH

SCHILD, JOYCE A., B.S., M.D., Assistant Professor, RMC and Associate Attending, PSLH

The residency program in otolaryngology provides for three residents, one in each year of training. In addition, there are assigned to the service each month two to three house officers not in the otolaryngology program.

Hospital admissions to this service average approximately 1,000 patients annually with an average daily census of 25, encompassing a great variety of clinical conditions. The numerous requests for consultations from other services provide additional exposure to diverse medical and surgical problems

The outpatient clinic in otolaryngology, held each weekday, averages approximately 5,000 patients a year. Both adult and pediatric beds are available for hospitalization of Health Center patients. The residents work closely with three geographically full-time department members and the seven-member voluntary attending staff.

Emphasis in both hospital and clinic areas is directed towards supervised instruction and graded responsibility for patient care. Teaching includes considerable exposure to first-and second-year medical students, in addition to the elective clerkships available to third- and fourth-year students. The residents prepare presentations for hospital seminars and

SCIARRETTA, S.A., M.D., Emeritus Professor, RMC and Emeritus, PSLH WALLNER, LINDEN J., B.S., M.D., Professor, RMC and Senior Attending, PSLH

for the departmental conferences. Residents also participate in the instruction of medical students, nurses and technicians.

Among the conferences which form an important part of departmental activities are weekly and biweekly seminars in otology, surgical pathology, otolaryngic radiology, a journal club, surgical grand rounds, medical and pediatric grand rounds on certain occasions, and general tumor conferences. A multidisciplinary head and neck tumor conference is held weekly.

Head and neck surgical anatomy and temporal bone microsurgery dissection are held weekly for the residents, supervised by the attending staff. Weekly departmental conferences stress interdisciplinary activities involving other specialties.

Present research by the house staff involves assessment of chronic middle ear disease and airway problems in association with craniofacial anomalies and the immunologic aspects of head and neck tumors.

The department is a full-time participant in the Health, Education and Welfare and National Cancer Institute-sponsored Comprehensive Network Demonstration Project for Head and Neck Cancer, in cooperation with Northwestern University.

Section of Dental and Oral Surgery

DOUGLAS, BRUCE L., D.D.S., Director ADUSS, HOWARD, D.D.S., Professor, RMC and Senior Attending, PSLH (also Plastic and Reconstructive Surgery)

BONICK, JAMES F., D.D.S., Instructor, RMC and Adjunct Attending, PSLH DITTMER, CEDRIC, D.D.S., Emeritus,

RMC and Emeritus, PSLH
DOUGLAS, BRUCE L., A.B., D.D.S.,
M.A., M.P.H., Professor, RMC and
Senior Attending, PSLH

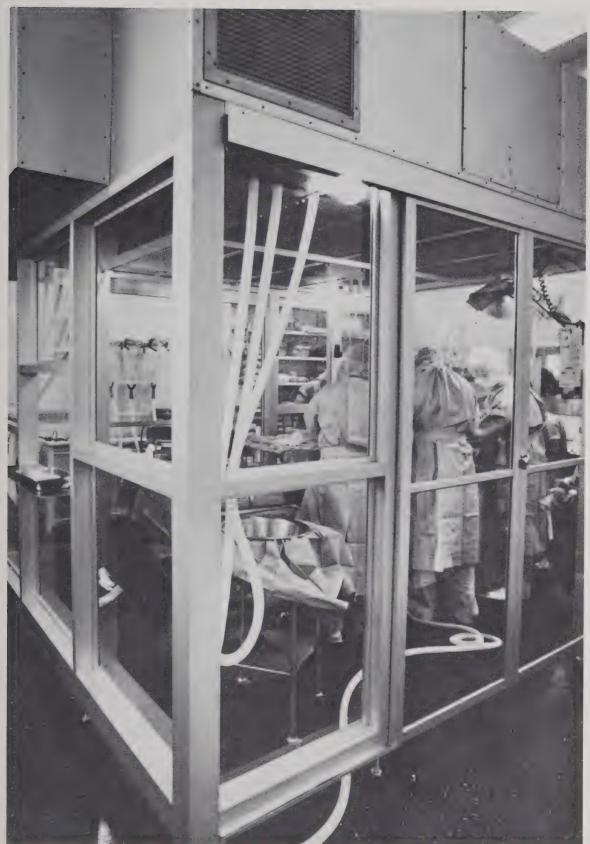
FEIMER, PETER P., D.D.S., Instructor RMC and Adjunct Attending, PSLH

GOLD, HENRY O., D.D.S., Assistant Professor, RMC and Assistant Attending, PSLH (also Plastic and Reconstructive Surgery) GROSS, PHILIP J., D.D.S., Instructor, RMC and Adjunct Attending, PSLH HOLMES, WILLIAM H., D.D.S., Associate Professor, RMC and Senior Attending,

KELLEHER, LEON R., B.S., D.D.S., Assistant Professor, RMC and Assistant Attending, PSLH

PIROK, DARRYL J., B.A., B.S., D.D.S., M.S., Assistant Professor, RMC and Associate Attending, PSLH

PIROK, RONALD G., B.D.S., D.D.S., Instructor, RMC and Assistant Attending, PSLH



Oral Surgery . . .

SCHACHT, DEAN, D.D.S., Instructor, RMC and Assistant Attending, PSLH SCHULTZ, LOUIS W., M.D., D.D.S., Emeritus Professor, RMC and Consultant, PSLH SHEARON, KENNETH, D.D.S., Instructor, RMC and Consultant, PSLH

The Section of Dental and Oral Surgery includes four general dental residencies, all approved by the Council on Dental Education of the American Dental Association, which provide training in all aspects of dental practice within a hospital-based group practice setting. The resident during at least half of his training year serves as a member of the group; emphasis is placed on assisting him to understand the workings of a hospital-affiliated group dental practice in which there are continuing interrelationships with physicians in various medical specialties. There is some degree of flexibility in the training program, which varies to a degree according to the individual resident's interests. There is a concentrated three-month program in anesthesiology, pain control, and intravenous sedation. Constant emphasis is placed on the medical aspects of dental practice and opportunities to learn the techniques of treating the dental problems of the handicapped, the aged, and the chronically ill. Each resident has experience in all aspects of oral surgery that might be encountered by a well-trained general practitioner. A significant amount of major oral surgery is done in the program.

Residents interested in community dentistry are given opportunities to participate in hospital-oriented outpatient programs and to treat bedbound patients away from the hospital environment.

The ultimate objectives of the program are to help the future general practitioner to function effectively in a total health care environment, with the emphasis on the dental and medical team.

Many of the advantages of related hospital departments are available to the resident during his training, including operating room and outpatient experience with general anesthesia, medical and other departmental ward rounds, clinical pathology and tumor conferences, and the care of pediatric and obstetric patients in a preventive dental capacity.

The dental staff includes representatives from dental specialty areas and dental hygiene. The dental program is conducted in a clinical facility which includes twelve dental chairs, a dental radiology department, a dental laboratory, recovery rooms, consultation rooms, and a conference room for meetings and training sessions.

Section of Communicative Disorders WOLFE, VIRGINIA I., Ph.D., Director BACON, MARY, B.S., M.A., Assistant Professor, RMC and Assistant Scientist, PSLH MEYER, DIANNE L., B.S., M.A., Instructor, RMC

The Section of Communicative Disorders functions as an integral part of the Department of Otolaryngology. Approximately 3,000 patients are seen each year for audiological testing, speech, language and voice evaluations and therapy. Teaching activities include seminars on topics related to basic and specialized aspects of speech pathology and audiology such as tympanometry, elec-

REMENSNYDER, LINDA, B.A., M.A., Instructor, RMC

WOLFE, VIRGINIA I., Ph.D., Associate Professor, RMC and Associate Attending, PSLH

tronystagmography, and spectrography, as well as aural and vocal rehabilitation. Because of the multidisciplinary nature of most communicative disorders, staff members are available for informal consultation on problems related to aphasia, stuttering, developmental language problems, etc. In addition to the educational and clinical interaction with house staff, supervised practica are

Communicative Disorders . . .

provided graduate speech and hearing students from Northern Illinois University.

# Department of Pathology

WEINSTEIN, RONALD, M.D., The Harriet Blair Borland Chairman of Pathology

AYER, JOHN P., A.B., M.S., M.D., Professor, RMC and Senior Attending, PSLH

BANNER, BARBARA, M.D., Assistant Professor, RMC and Assistant Attending, PSLH

CLASEN, RAYMOND A., B.S., M.D., Associate Professor, RMC and Senior Attending, PSLH

COOGAN, PHILIP S., Associate Professor, RMC and Associate Attending, PSLH

DAINAUSKAS, JOHN R., M.D., Associate Professor, RMC and Associate Attending, PSLH EISENSTEIN, REUBEN, B.S., M.D., Professor, RMC and Senior Attending, PSLH

GOULD, VICTOR E., M.D., Professor, RMC and Senior Attending, PSLH

HASS, GEORGE M., B.S., M.D., The Otto S.A. Sprague Professor, RMC and Senior Attending, PSLH

LEE, ROBERT E., JR., B.S., M.S., Ph.D., Assistant Professor, RMC and Assistant Attending. PSLH

MILLER, ALEXANDER W., M.D., Associate Professor, RMC and Associate Attending, PSLH

PELLETTIER, EDMUND V., B.A., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

The principle underlying the program in Pathology is to offer simultaneous progressive training in service functions, research and teaching. It is believed that continuous divided attention to several subjects over a long period of time is preferable to concentrated attention to each subject in sequence over short periods of time. The program also offers to the first year trainee or resident multiple choices as to how to use time: the long period of continuous exposure to multiple subjects, beginning with the first day of training, should lead the trainee or resident more quickly to a recognition of his interests as well as develop his capacity for interpretation of diverse aspects of laboratory operations in daily hospital life. Current cases are analyzed in weekly tumor clinics, pathology staff conferences, hematology, histopathology, autopsy pathology, surgical pathology, cytopathology, liver, renal and clinical pathology conferences; regular seminars on biochemistry, neuropathology, microbiology, and current research.

The Department of Pathology is divided into several sections. The principal patient service sections participating are autopsy pathology, surgical pathology and cytopathology. About 550 autopsies are done each year, no intern or resident is allowed

more than 50-60 autopsies each year—but they are done thoroughly and with close attending staff assistance through completion of the protocol for permanent binding.

The two residents assigned each year to surgical pathology are responsible for completion of reports about 14,000 surgical specimens which are studied gorssly and microscopically under close attending staff supervision. They are also responsible, with attending, staff consultation, for about 1,000 rapid frozen section diagnoses during surgical procedures each year.

About 13,000 cytopathology specimens are screened by staff cytotechnologists each year. Problems are submitted daily to residents for evaluation and then to the attending staff for final opinion.

During assignments to the Department of Biochemistry, house staff encounter instruments and procedures involved in practically every determination in clinical chemistry.

During assignments to the Department of Microbiology, almost every diagnostic procedure is encountered which has relevance to virology, serology, bacteriology, mycology and parasitology. Emphasis in both rotations is upon laboratory operation rather than technical details, but there is considerable time for obser-



vation of skilled technicians at the bench.

During assignments to the Section of Hematology, there is an excellent opportunity to assist in patient management, to do bone marrow preparations and to study blood smears. Other hematologic procedures in great variety and technical detail are carried out regularly in these laboratories. This is an especially valuable experience in correlation of clinical and laboratory findings. There is also an opportunity to learn the details of operation of a modern and very active blood bank. The assignment in Immunology involves learning the techniques of immunology, especially as they are applied to the diagnosis or management of human disease.

During the elective period spent in Nuclear Medicine, Electron Microscopy or Cytopathology there is close correlation between the types or results of procedures and the diagnosis and management of the diseases under study.

For research training, the Division of Pathology has several well-equipped laboratories staffed by about 20 technicians and more than 10,000 square feet of floor area. The animal laboratories house several hundred mice and rats, several hundred rabbits and over one hundred larger animals. In addition, there are ancillary facilities such as surgical operating rooms, x-ray rooms, autopsy rooms, etc. Special pathology research laboratories are designed and equipped for virology, histochemistry, electron microscopy, photomicrography, ultracentrifugation, tissue fractionation, visible and ultraviolet spectrophotometry, flame spectrophotometry, atomic absorption spectrophotometry, column and paper chromatography, high voltage electrophoresis, tissue culture, amino acid chromatography and gas chromatography. These laboratories and instruments are available to support research interests of the resident staff. The required technical assistance is equally available and is of great importance in the research training program, though research is

not a required part of the program.

The first year post-M.D. trainee program in Pathology accepts two trainees. The twelve months are spent in the Department of Pathology studying gross and microscopic pathologic anatomy. During this period the trainee may select a research subject and begin investigative work under supervision of the attending staff. The trainee during the entire 12-month period attends the seminars and conferences involving case-oriented exercises designed to correlate the course of human disease with laboratory findings. The year is equivalent to one year of resident training for Board Certification.

The major part of the second year is devoted to microscopic surgical pathology and cytopathology. All descriptions and diagnoses, after consultation with the pathology attending staff, are the responsibility of the residents, who are also assigned responsibility for assisting first-year residents with gross postmortem procedures and gross surgical pathology.

The resident is responsible for preparation and interpretation, with attending staff consultation, of frozen sections for rapid diagnosis during surgical procedures. He continues to attend all seminars. Research previously undertaken is continued. If serious interest in research becomes apparent, technical assistance is assigned to facilitate the investigation and the resident assumes responsibility for direction of one or more research technicians.

The resident becomes more active in the teaching of pathology to medical students in the hospital as surgical clerks, and is also assigned to management of the pathologic aspects of the Tumor Clinic, which is a consultation clinic concerned with the diagnosis and treatment of problem cases. In the third year, the first assignment is for six months in the Department of Microbiology, learning diagnostic procedures in virology, bacteriology, mycology and parasitology. The second six months is spent in the Department of Biochemistry learning principles, instrumenta-

#### Pathology . . .

tion and procedures related to clinical biochemistry. The resident continues attendance at all seminars, rotation on the postmortem service in selected cases, and, if interested, research, with the aid of technical assistants.

The resident begins teaching the formal course for second-year medical students as an instructor on the faculty of the Rush Medical College and continues teaching surgical pathology to medical students serving as clinical clerks in the hospital.

The first assignment in the fourth year is for six months in the Department of Hematology. Emphasis is placed upon hematology and blood bank procedures pertaining to direct patient care in which he participates.

The resident attends hematology rounds, and continues rotation on postmortem service in selected cases, and research persists.

The resident assumes responsibility for conduct of seminars of special interest, while continuing to attend all seminars. He also continues teaching of second, third and fourth-year medical students.

The second assignment of three months in the Department of Immunology emphasizes clinical immunologic tests and the relations of immunology to clinical problems.

The third assignment is a threemonth elective in the Department of Nuclear Medicine, the Section of Electron Microscopy or the Section of Cytopathology. In each of these fields, attention is given principally to the relations of the methods to clinical diagnosis and management.

The fifth-year resident continues to add to his experience in surgical pathology and cytopathology by concern with daily diagnostic problems, supplemented by rotation on postmortem service in selected cases; attendance at all seminars, conducting those of special interest, and

research and teaching, as in the fourth-year program. These activities allow the resident at least one-half of his time for research or further specialty training in accordance with his choice. Excellent opportunities are available in cytopathology, electron microscopy, neuropathology and various aspects of clinical pathology.

For those with particular interests, the fifth year may be principally spent in research or in some special field of anatomic or clinical pathology.

Other Types of Training: Residents who wish to be trained primarily or exclusively in special fields such as clinical chemistry or hematology may make separate arrangements with the attending biochemists, hematologists or others who will assume principal responsibility for their training, using such parts of the outlined program as seem desirable to complement their individual specialty programs. Residents who wish to be trained primarily for the practice of medicine or for careers in academic medicine are welcome in this program.

Student and other types of fellowships are available for those who do not follow the full schedule of formal resident training. Residents in the programs of the military services are welcome; many have been assigned here. Graduate students in one of the basic medical sciences may, when qualified, participate in this program.

The program is fully approved for training in anatomic and clinical pathology by the American Board of Pathology. Approval is given for the appointment and training of ten post-doctoral residents. All residents upon completion of training have been qualified for examinations by the American Board of Pathology and have all been certified following examination.

Department of Plastic and Reconstructive Surgery

CURTIN, JOHN W., M.D., Chairman ADUSS, HOWARD, B.S., M.S., D.D.S., Professor, RMC and Senior Attending, PSLH (also Otolaryngology and Bronchoesophagology) BRADLEY, CRAIG, B.A., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

CURTIN, JOHN W., B.S., M.D., Professor, RMC and Senior Attending, PSLH

Plastic and Reconstructive Surgery . . .

GREELEY, PAUL W., A.B., M.D., Emeritus Professor, RMC and Consulting, PSLH

GOLD, HENRY, D.D., Associate Professor, RMC and Associate Attending, PSLH (also Otolaryngology and Bronchoesophagology)

McNALLY, RANDALL E., B.S., M.D., Associate Professor, RMC and Associate Attending, PSLH

The two year graded training program in General Plastic and Reconstructive Surgery is fully accredited by the Tripartite Conference Committee on Graduate Training sponsored by the American Medical Association, the Americal College of Surgeons and the American Board of Plastic Surgery. In order to be considered for appointment, the applicant must have completed a minimum of three years acceptable training in general surgery in order to comply with the requirements of the American Board of Plastic Surgery. One resident is selected to start training each year on July 1.

At present an average of over 1,000 plastic surgery patients are operated upon annually at this institution. Plastic surgery patients, embracing a wide variety of ages and types, may be private, clinic or from the Mile Square Health Center. Bed privileges and special operative times are offered the residents but all of the patients in the hospital are available for teaching purposes. The residents' case load comes from an active plastic surgery free clinic supervised by the attending staff.

The residents will be trained in overall preoperative surgical diagnosis and care, surgical treatment and postoperative care of patients amenable to treatment by plastic surgery. There is more than adequate experience in the various methods of excisional and reparative surgery of the scalp, face, orbits, nose, oral cavity, neck, trunk and extremities, as well as experience in management of neoplasms of the head and neck, cosmetic surgery, facial trauma, surgery of the hand, burns and congenital abnormalities of the extremities and genitalia. Cooperation with other departments (orthopedics, general

MONROE, CLARENCE W., B.S., M.D., Emeritus Professor, RMC and Consulting, PSLH

SCHENCK, ROBERT, B.A., M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Orthopedic Surgery)

surgery, genitourinary, gynecology, bronchoesophagology, neurosurgery) allows exceptional experience in reconstruction of the esophagus, larynx, trachea, vagina and abdomen and the repair of extensive encephalocele, myelomeningocele and severe craniofacial deformities.

Residents are given ample opportunity to perform major procedures under the supervision of the attending staff. Increasing ability brings increased responsibility. To help the resident acquire skill and judgment in all phases of his work, emphasis is placed on personal instruction at the bedside, in the clinic, in the operating room and in the pathology and anatomy laboratories. Active participation in research is mandatory. The program stresses participation in weekly pathological conferences, plastic surgical and general surgical grand rounds, tumor conferences, surgical research projects, hand seminars and journal reviews. The resident also spends time each week in private offices of the attending staff.

There is a separate Hand Clinic where acute and extensive reconstructive hand surgery cases are seen and operated upon. A large case load of cleft lip, cleft palate and severe craniofacial anomalies are operated upon by the plastic surgical staff and residents at Presbyterian-St. Luke's Hospital, and there is a close relationship with the Center for Craniofacial Anomalies at the University of Illinois School of Medicine, where over 1600 cases are seen each year.

Both the junior and senior residents are afforded the opportunity to attend major surgical meetings during the year. They are encouraged to present papers on their own or in conjunction with the attending staff. A resident will be given an ap-



Plastic and Reconstructive Surgery . . .

Department of Therapeutic Radiology

pointment as Instructor in Surgery in the Department for the entire training program.

#### HENDRICKSON, FRANK R., M.D., Chairman

AMEEN, DEAN, M.D., Visiting Assistant Professor, RMC

CHUNG-BIN, ANTHONY, B.S., M.Sc., Associate Professor, RMC and Senior Attending, PSLH (also Diagnostic Radiology)

COX, RICHARD, Ph.D., Assistant Professor, RMC and Associate Scientist, PSLH

HENDRICKSON, FRANK R., B.A., M.D., Professor, RMC and Senior Attending, PSLH

KARTHA, PONNUNNI K.I., B.Sc., M.Sc., Associate Professor, RMC and Associate Attending, PSLH

The department offers a three year program leading to qualification for American Board of Radiology examination in Therapeutic Radiology, with a fourth year of special training in therapeutic radiology and/or clinical use of radioactive isotopes for those desiring such augmentation of previous experience.

The Radiotherapy Section consists of an integrated area of 6,500 square feet devoted to clinical problems and 1,000 square feet of research space. Within this area are two supervoltage teletherapy machines, one orthovoltage, one superficial treatment machine, and an image-amplified simulator to permit accurate localization of treatment volumes. The radium laboratory contains 750 mgms. of radium or isotope equivalent for clinical use. An electronic shop provides maintenance, design, and production of special equipment.

Rush-Presby terian-St.Luke's Medical Center registers over 1,600 new cancer patients a year, with more than half receiving some form of radiotherapy. There are more than 15,000 treatment visits and 2,000 follow-up visits a year. All patients are seen initially by the radiotherapy house staff, with preliminary evaluation and treatment planning before finalization of the treatment program with the attending staff.

Patients are admitted to the radi-

MILLBURN, LOWELL F., B.S., M.D., Visiting Associate Professor, RMC PHILLIPS, RICHARD L., D.D., Visiting Associate Professor, RMC

SAXENA, VIRENDA S., B.S., M.B.B.S., Associate Professor, RMC and Senior Attending, PSLH

SHEHATA, WAGIH, M.D., Visiting Associate Professor, RMC

SHIRAZI, SYED J.H., M.D., Visiting Associate Professor, RMC

WACHTOR, THOMAS E., B.S., M.S., Assistant Professor, RMC

ology service directly and operating room priority is assigned for radiotherapeutic operating room procedures. Community hospitals within the Medical Center network permit rotation and exposure to the problems of community hospital practice.

There is an active clinical and basic research program in the areas of: (1) preoperative radiotherapy; (2) combined chemotherapy and radiotherapy; and (3) optimum fractionation and protraction. The National Institutes of Health, the American Cancer Society, and local institutional funds provide financial support. Active participation in these programs by residents and fellows is strongly encouraged. Opportunities for independent investigation are available.

Medical students from Rush and other schools rotating through the department offer a stimulus as well as a teaching challenge. In addition, interns from Surgery have an elective one-month rotation into Therapeutic Radiology. The School of Radiotherapeutic Technology offers still another teaching opportunity for motivated staff. The training program is basically related to patient problems. Assignment of all new patients is made for evaluation and treatment planning. Plans for all new patients and any problem patients are reviewed daily with the entire

### Therapeutic Radiology . . .

attending and resident staff. The daily treatment and follow-up is performed in conjunction with the attending staff. The senior resident is responsible for all Health Center patients, with consultation if desired. Adequate opportunity is present to

ensure development of proficiency in all necessary external treatment and implant modalities. Approximately one-fourth of the training period is devoted to radium and isotope training.

# Department of Urology

McKIEL, CHARLES, M.D., Chairman CALLAHAN, DANIEL H., B.S., M.D., Associate Professor, RMC and Senior Attending, PSLH

COTTRELL, THOMAS L., M.D., Visiting Assistant Professor RMC and Consultant, PSLH

EKBAL, SHAHID S., M.B.B.S., Instructor, RMC and Assistant Attending, PSLH FLANAGAN, MALACHI J., M.D., Professor, RMC and Senior Attending, PSLH GRAF, EDWIN C., B.S., M.D., Professor, RMC and Senior Attending, PSLH

GUINAN, PATRICK D., B.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

The Department of Urology offers a four year residency designed to provide a high degree of competence in all aspects of genitourinary surgery. The residency is fully approved by the residency review committee of the American Medical Association. The first year is spent in general surgery or nephrology and the subsequent three years in progressive responsibility in urology.

The general surgical year provides six months of general abdominal surgery familiarizing the candidate with basic surgical principles and operative technique, and providing invaluable experience in overall patient care. During the second six months the first year resident rotates at monthly or bimonthly intervals through some of the surgical specialties. A special effort is made to provide rotations of interest to the trainee, and of special value to a urologist.

During the second year, the first spent in urology, the candidate is instructed in the performance of cystoscopy and the various special diagnostic techniques which are the backbone of the specialty, and gains wide experience in urologic surgery, usually as first or second assistant. The second year resident has wide and primary responsibilities in pa-

McKIEL, CHARLES F. JR., A.B., M.D., Professor, RMC and Senior Attending, PSI.H

MERRICKS, JAMES W., M.D., Emeritus Professor, RMC and Emeritus, PSLH NADJMK, BORZOO, M.D., Associate, RMC

PAPIERNIAK, FRANK B., B.A., M.D., Associate Professor, RMC and Senior Attending, PSLH

VALENTA, JAMES C., M.D., Associate Professor, RMC and Associate Attending, PSLH

tient care, but is encouraged to conduct some research in association with a member of the staff in the urology research laboratory. Such research may be continued in future years.

The third year resident (second year in urology) is in charge of the private inpatient service and is first assistant at surgery on private patients. He begins to perform major urological surgery, under close supervision and helps formulate the material to be presented in various teaching rounds.

The senior resident is in overall charge of the clinic service. He makes daily ward rounds with the second year urology resident and the general surgery resident, intern and medical students assigned to the urology service. By choosing the patients to be presented for evaluation and discussion, the senior resident structures many of the teaching conferences held in the department. Although attending urologists are always available for counsel and assistance, the senior resident is encouraged to pursue a vigorous and self-reliant course of patient care and teaching. The outpatient clinics of the department are held three afternoons a week. New patient and

Urology . . .

follow-up care clinics held twice a week average 35 to 45 patients an afternoon. Weekly half-day pediatric urologic and outpatient cystoscopy clinics are held under the direction of the senior resident in urology, with an attending urologist available at all times for consultation.

Attendance of all residents and students on the urology service is required at weekly teaching conferences of the department: at the pyelogram conference in conjunction with the Department of Radiology. interesting current x-rays are reviewed and discussed. At formal rounds, three or four inpatients are presented and discussed by all members of the staff. A joint conference with the Renal and Nutrition Section discusses patients with metabolic disease of interest to the urologist and considers evaluation and management of patients with stones, infection, various non-obstructive renal diseases, and renal failure from all

Pediatric urology conferences are held three times a month in conjunction with the Department of Pediatrics. dency, to begin after completion of Changes in the concept of treatment often are emphasized at these conferences, and various common problems, such as the management of neurogenic bladder in the child, are periodically reviewed in depth. Pathology rounds are held twice a month. All residents on the urology

service review microscopic sections of current surgical material.

The journal club meets twice a month. At one session articles of interest in the current Journal of Urology are reviewed and discussed. At the other session one assigned topic is discussed in detail, and three or four particularly stimulating articles are discussed at some length. A member of the attending staff acts as moderator.

All residents on the urology service are expected to attend weekly surgical grand rounds, and any of the other teaching conferences offered at the hospital that may be of interest, such as the informal course in surgical physiology held on Saturdays.

Out of town speakers are regularly invited to give special rounds. These may deal with new research, new surgical or diagnostic techniques, or new concepts in treatment.

The resident also is required to participate in the regular meetings of the Chicago Urological Society.

Applications for the urology resithe internship, may be submitted at any time during the internship, the fourth year of medical school, or during intervening military service.



#### **Rush University**

James A. Campbell, M.D., President John S. Graettinger, M.D., Dean of Faculty Affairs

Joe Swihart, M.S.Ed., Registrar Wayne Franckowiak, B.S., Bursar

#### **Rush Medical College**

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Dean, Rush Medical College
Robert W. Carton, M.D.,
Associate Dean, Medical
Sciences and Services
L. Penfield Faber, M.D.,
Associate Dean, Surgical
Sciences and Services
David I. Cheifetz, Ph.D.,
Associate Dean, Biological and

George C. Flanagan, M.D.,
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Affairs
Leon M. Henikoff, M.D.,
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Wayne Lerner, M.S.,
Assistant to the Dean

Mary Glessner, M.A.,

Ruth Johnsen, A.M.,

Admissions
Barbara Schultz, B.A.,

Relations

Assistant to the Dean

Assistant to the Dean, Nursing

Director, High School/College

#### Rush College of Nursing and Allied Health Sciences

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Dean, Rush College of Nursing
and Allied Health Sciences
Leon Dingle, Jr., Ph.D.,
Dean, Office of Allied Health
Sciences
Yvonne Munn, M.S.N.,
Associate Dean, Rush College of
Nursing and Allied Health
Sciences
Lucille Davis, Ph.D.,

Behavioral Sciences and Services

Nursing and Allied Health
Sciences

Lucille Davis, Ph.D.,
Assistant Dean, Graduate
Program in Nursing
Mary Ann Eells, D.Ed.,
Assistant Dean, Under
Kathe Brown, M.A.,
Administrative Assistant, Student
Affairs
Peggy Lusk, M.A.,
Director, Counseling Services

#### Rush Graduate College

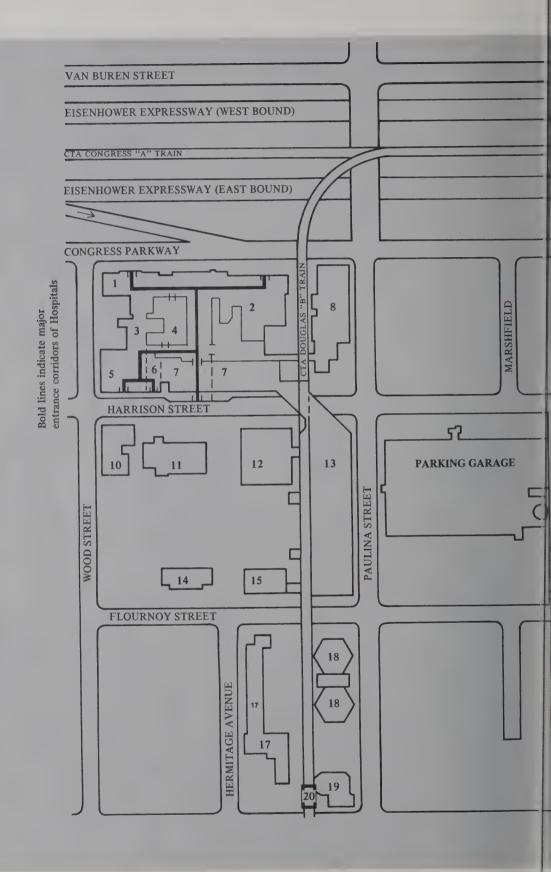
David L. Cheifetz, Ph.D., Acting Dean, Rush Graduate College

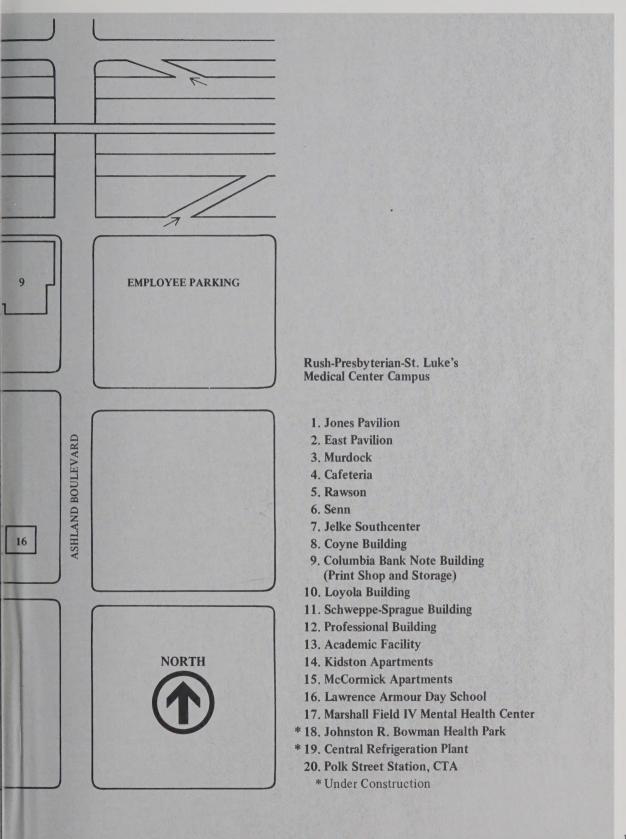
graduate Programs in

Nursing

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The Medical Center: A Summary Rush-Presbyterian-St. Luke's Medical Center is the central initiating component of a comprehensive, cooperative health delivery system, serving some 1.5 million people through its own resources and in affiliation with ten community hospitals in northern Illinois.

It is Rush University, and a cooperative educational system which comprises Rush Medical College, Rush College of Nursing and Allied Health Sciences, Rush Graduate College, and thirteen liberal arts colleges and universities in five states from Minnesota to Tennessee.

It is a complete medical center, and a center for basic and clinical research, in traditional disciplines and in multidisciplinary centers coordinating the research attack on cancer, cardiovascular disease, and multiple sclerosis.

It is a pioneer in community medicine, through its relationship with Mile Square Health Center, its creation of its own Health Maintenance Organization, ANCHOR; and its expanding services in the city and beyond.

In all, Rush-Presbyterian-St.
Luke's is an organization of more than 5,000 people—medical and scientific staff, faculty, students, and employees committed to providing the best of care with the highest professional standards, and with compassionate attention to the needs of every patient.

Approvals

Joint Commission on Accreditation of Hospitals

American Medical Association for Internship and Residencies for Physicians Education, State of Illinois American Medical Association

North Central Association of Colleges and Secondary Schools

License

Memberships

Department of Public Health, State of Illinois

American Hospital Association
Illinois Hospital Association
Chicago Hospital Council
Blue Cross Plan for Hospital Care
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Office of Graduate Medical Education Rush-Presbyterian-St. Luke's Medical Center 1725 West Harrison Street, Room 919 Chicago, Illinois 60612